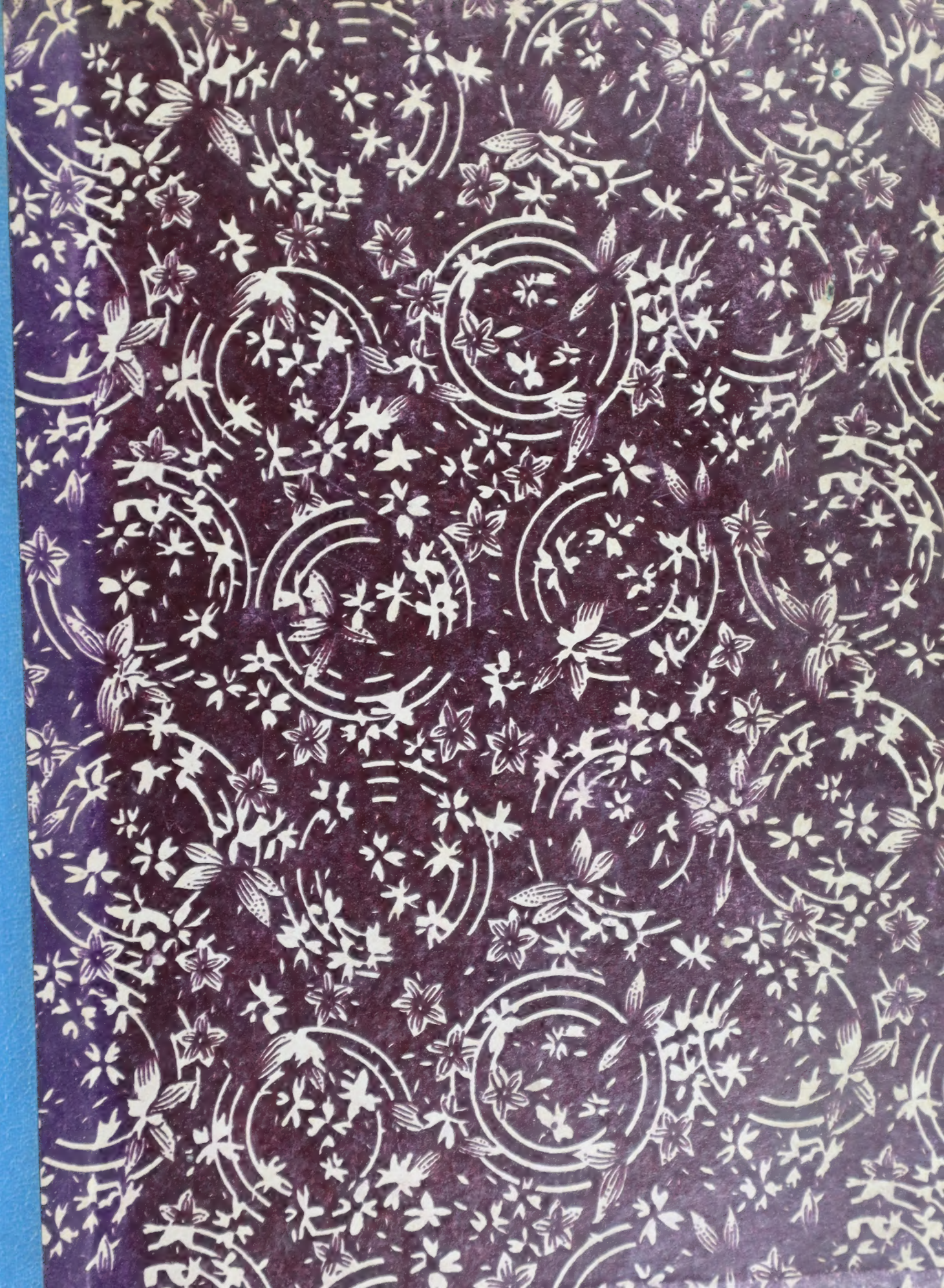




March 1975 Food Annotated Bibliography 47
covering the period 1967 — 1974

Food science and technology

Books

International Food Information Service (IFIS)

FOOD SCIENCE AND TECHNOLOGY BOOKS

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FOOD SCIENCE AND TECHNOLOGY BOOKS

March, 1975

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INTRODUCTION

Food Annotated Bibliographies (FABs) are collections of abstracts on specific topics in food science and technology. The topics are chosen by the staff of the International Food Information Service as being of particular interest or importance. The topics normally interest individual workers, who may not require the full information provided in Food Science and Technology Abstracts, from which the abstracts for the FABs are taken. The size and the cost of the FABs are controlled as much as possible with the interests of individual workers in mind.

Titles of the FABs now available are given on the back cover of this booklet. New titles are being added at the rate of about 10-20 per year. For up-to-date lists of FABs or suggestions for new topics please write to the address given on the back cover. New subjects are searched for at least the five most recent volumes of Food Science and Technology Abstracts. Thereafter each FAB is updated monthly. Copies of each month's abstracts on any topic may be obtained as indicated on the back cover of this publication. At the end of each volume of up-dating, the abstracts are merged and made available as a separate supplement to the original FAB.

Some of the larger FABs have been divided into sections to facilitate use. Abstracts are not printed in more than one section. The larger FABs also have subject indexes provided.

Copies of all original articles referred to in the abstracts may be bought (or occasionally borrowed) from the International Food Information Service.

Coverage of the subject has been restricted to that of Food Science and Technology Abstracts, which covers over 1200 of the important food journals, patents from 20 countries and books published world-wide. Every effort is made to include all significant references, but editorial discretion is used on the many articles of borderline interest. If the reader particularly needs an exhaustive search of the subject, we will be pleased to provide any other references that we have available. We would in any case encourage readers to write or telephone us with any comments or queries they may have.

J. NEWTON
ASSISTANT EDITOR

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ABBREVIATIONS

*These entries are used in addresses only

A	ampere	*Div.	Division	*Int.	International
abstr.	abstract	DM	dry matter, Deutsche Mark	IR	infrared
*Acad.	Academy etc.	DNA	deoxyribonucleic acid(s)	IU	international unit
Akad.	Ad libitum	DSA	Dairy Science Abstracts	J	joule
ad lib.				Jan.	January
*Agric.	Agriculture, Agricultural etc.			k-	kilo- (as in kcal. kg)
AI	Artificial insemination	E.	East, Eastern etc.	kgf	kilogram-force
a. m.	ante meridiem	EEC	European Economic Community	*Ltd.	Limited
Anon.	Anonymous	e. g.	for example	l.	litre
AOAC	Association of Official Analytical Chemists	Eh	Oxidation-reduction potential	*Lab.	Laboratory
approx.	approximately	*Eng.	Engineering etc.	lb	pound
*Assoc.	Association	*Expt.	Experiment etc.	lbf	pound-force
atm.	atmosphere			m	metre
Aug.	August	f	femto- (10^{-15} , as in fCi)	m-	milli- (as in mg, ml, mm)
*Bact.	Bacteriology	°F	degree Fahrenheit	m-equiv.	milli-equivalent
*Biochem.	Biochemistry	*Fac. Fak.	Faculty etc.	M	molar concentration
*Biol.	Biology	FAO	Food and Agricultural Organization	M-	Mega- (as in Mrad)
BOD	biological oxygen demand	FDA	Food and Drug Administration	max.	maximum
bp	boiling point	Feb.	February	*Med.	Medicine etc.
Btu	British thermal unit	*Fed.	Federal, Federation etc.	*Micro- biol.	Microbiology
c-	centi- (as in cm, cm ² , cm ³)	fl oz	fluid ounce	min	minute (time)
°C	degree Celsius (Centigrade)	fp	freezing point	min.	minimum
cal	calorie	FSTA	Food Science and Technology Abstracts	Min.	Ministry
cd	candela	ft	foot, feet	mol	mole
*Chem.	Chemistry	g	gram	mol. wt.	molecular weight
Ci	curie	g	gravity	mp	melting point
CMT	California mastitis test	gal	gallon	MPN	Most Probable Number
COD	chemical oxygen demand	GLC	gas-liquid chromato- graphy	MS	mass-spectrometry
coeff.	coefficient	*Govt.	Government	n-	nano- (10^{-9} , as in nm)
*Coll.	College			N	Newton (kg m/sec ²)
*Co.	Company	h	hour	N.	North, Northern etc.
conc.	concentrated	ha	hectare	N	normal concentration
concn.	concentration	hl	hectolitre (100 l.)	*Nat.	National
*Corp.	Corporation	hp	horse power	*Nauchno- issled.	Nauchno-Issledovatel'skogo etc.
CSIRO	Commonwealth Scientific and Industrial Research Organization	HTST	high temperature short time	*NSW	New South Wales
cwt	hundredweight	Hz	hertz (frequency/sec)	NMR	Nuclear magnetic resonance
Dec.	December			Nov.	November
*Dept.	Department	i. e.	that is	*Nutr.	Nutrition etc.
detn.	determination	in	inch	Oct.	October
DHIA	Dairy Herd Improve- ment Association	*Inc.	Incorporated	oz	ounce
diam.	diameter	*Ind.	Industry etc.	p-	pico- (10^{-12} , as in pCi)
dil.	dilute	*Inst.	Institute etc.	P	Poise
				Pathol.	Pathology

*Physiol.	Physiology etc.	SNF	solids-not-fat	V	volt
p.m.	post meridiem	sp., spp.	species	var.	variety
ppm	parts per million	sp. gr.	specific gravity	*Vet.	Veterinary
PVC	polyvinyl chloride	*St.	State etc.	vol.	volume
PVDC	polyvinylidene chloride	*Sta.	Station etc.	*Vses.	Vsesoyuznyi etc.
		summ.	Summary	v/v	volume/volume
				vs.	versus
qt	quart	t	metric tonne (1000 kg)	W	watt
r	röntgen	TDN	total digestible nutrients	W.	West, Western etc.
rad	rad or radian	*Tech.	Technical, Technology etc.	WHO	World Health Organization
ref.	reference(s)	temp.	temperature	w/v	weight/volume
*Res.	Research	TLC	thin layer chromatography	wk	week
rev/min	revolutions per minute	TS	total solids	wt.	weight
RH	relative humidity	UHT	ultra-high temperature	yd	yard
RNA	ribonucleic acid(s)	UK	United Kingdom	yr	year
		*Univ.	University etc.	μ-	micro- (as in μg, μm)
S.	South, Southern etc.	USA	United States of America	%	per centum
*Sci.	Science, Scientific etc.	USDA	United States Department of Agriculture	>	greater than
SD	Standard deviation	USSR	Union of Soviet Socialist Republics	≥	greater than or equal to; not less than
SE	starch equivalent			<	less than
SEM	standard error of the mean			≤	less than or equal to; not greater than
s	second (time)				
*Sel'-skokhoz.	Sel'skokhozyaistvennoi etc.				
Sept.	September				

Chemical symbols are used for all elements.

ABBREVIATIONS FOR LANGUAGES

	<i>Language of text</i>	<i>Language of summaries</i>		<i>Language of text</i>	<i>Language of summaries</i>
Afrikaans	Af	af	Interlingua	Ia	ia
Albanian	Al	al	Italian	It	it
Arabic	Ar	ar	Japanese	Ja	ja
Armenian	Am	am	Kazakh	Ka	ka
Azerbaidzhan	Az	az	Korean	Ko	ko
Belorussian	Be	be	Latvian	Lv	lv
Bulgarian	Bg	bg	Lithuanian	Li	li
Chinese	Ch	ch	Macedonian	Ma	ma
Czech	Cs	cs	Malay	My	my
Danish	Da	da	Norwegian	No	no
Dutch	Nl	nl	Polish	Pl	pl
English	En	en	Portuguese	Pt	pt
Estonian	Ee	ee	Roumanian	Ro	ro
Finnish	Fi	fi	Russian	Ru	ru
French	Fr	fr	Serbo-croat	Sh	sh
Georgian	Ge	ge	Sinhali	Si	si
German	De	de	Slovak	Sk	sk
Greek	Gr	gr	Slovenian	Sn	sn
Hebrew	He	he	Spanish	Es	es
Hungarian	Hu	hu	Swedish	Sv	sv
Indonesian	In	in	Turkish	Tr	tr
			Ukrainian	Uk	uk

March, 1975.

ABSTRACTS

DICTIONARIES, DIRECTORIES

1

Food science and technology - a select list of books. [A book]
United Kingdom, University of Reading, National College of Food Technology
ii + 80pp. (1968) [En] [St. George's Avenue, Weybridge, Surrey, England]

2

A guide to nutrition terminology for indexing and retrieval. [A book]
Todhunter, E. N.
270pp. (1970) [En] Bethesda, Maryland, USA: US Dept. of Health, Education and Welfare [Div. of Nutr., Dept. of Biochem., School of Med., Vanderbilt Univ., Nashville, Tennessee, USA]
Approx. 1500 terms are listed alphabetically and in categorized lists. Categories covered include: Nutrients, biochemistry and physiology; Methodology; Disorders; Foods; Diets; Characteristics of man, animals and their environment; Behavioural and social sciences; Organisms; Anatomical terms; Nutrition education; History of food and nutrition; Organizations, programmes. Detailed notes on ~500 terms are given in a glossary. JN

3

Food technology - Depth version of CC. [A book]
Neelamegham, A.; Sangameswaran, S. V.
93pp. (1970) [Numerous ref. En] Bangalore, India; Sarada Ranganathan Endowment for Library Science [Documentation Res. & Training Centre, Bangalore, India]

A depth clarification version of Colon Classification for Compound Subjects going with the Host Subject Food (Production) Technology is given. Detailed notes on the schedule, and an alphabetic index to the schedule are also provided. JN

4

[Food merchandise technology dictionary.] Sownik towaroznawczy artykułow żywnościowych. [A book]
Ziemianski, M.
564pp. (1968) [Pl] Warsaw: WPL Price 140 zł.
This encyclopedia deals with products of animal and vegetable origin and is supplemented by numerous illustrations. STI

5

Dictionary of foods and cookery terms. [Book]

Senn, C. H.; Clarke, H. C.
164pp. ISBN 0 7063 1409 3 (1972) [En]
London, UK, Ward Lock Ltd.

6

Dictionary of economic plants. [A book]
Uphof, J. C. T.
2nd edition 591pp. (1968) [Numerous ref. En]
Lehre, W. Germany: Verlag von J. Cramer. Price 147s.

The purpose of this book is to present alphabetically a brief description of economic plants, with their geographical distribution, products and principal uses. In this 2nd edition >3000 spp. have been added, bringing the total to 9500. Several descriptions have been rewritten, new data have been added and the bibliography has been doubled. Information is given under the Latin names but cross references are made to these from common names. The edible nature of the plants is indicated where applicable. Plants of strictly local value are considered in addition to those of wider importance. The nomenclature is based on that of the Index Kewensis and the Int. Code of Botanical Nomenclature. JA

7

Binsted's directory of food trade marks and brand names. [A book]
Binsted, E. (Editor)
424pp. (1968) [En] London: Food Trade Review Ltd. Price 100s. [7 Garrick Street, London, WC2, England]

8

[Glossary of plants used in the food industry in Cuba.] Glosario de plantas utiles para la industria alimenticia. [A book]
Alonso Olive, R. E.
49pp. (1968) [Es] Havana, Cuba: Direccion de Colaboracion Tecnico Cientifico

Cuban trivial names (and synonyms) and Latin binominals are listed for 91 plants used for food purposes in Cuba, together with brief notes on cultivation and utilization. SKK

9

Food and beverage processing industries. [A book]
Noyes Data Corp.
iii + 169pp. SBN 8155 0353 9 (1971) [En] Park Ridge, New Jersey 07656, USA: Author Price \$20.00
Approx. 3500 US food firms are listed alphabetically by name. For each company, the correct name, address and zip code, annual sales, number of employees, name of chief executive and product types are given. A second section is arranged numerically by zip code. JN

10

Manufacturers and suppliers, products and brand names, applications and conditions of use.

Anon.

Food Manufacture 1970 (Mar., Ingredient Survey) 23-25, 27-28, 31-35, 37-39, 42-43, 45-47, 49-51 & 53 (1970) [En]

Tables list manufacturers and suppliers of food additives in alphabetical order under the type of ingredient (e.g. acidulants, antioxidants, curing compounds). JA

11

Dictionary of Russian technical and scientific abbreviations. [A book]

Zalucki, H.

387pp. (1968) [Ru, En & De] Amsterdam, London, New York: Elsevier Publishing Co.

A problem facing all who have to deal with original Russian literature is the multiplicity of abbreviations encountered, many of them in the form of acronyms. This book goes a long way towards solving this problem. Compiled with the specialist in mind (engineer, scientist, research worker, technologist, librarian, translator), it contains ~7300 individual entries, which are arranged in Russian alphabetical order; the full version is then given, together with En and De translations. Most branches of science and technology are represented, together with some commercial terms and the names of major research and technological institutes. HBr

12

[Serbo-croat - Polish technical dictionary.]

Słownik techniczny serbochorwacko-polski. [A book]

Anon.

325pp. (1969) [Sh & Pl] Warsaw, Poland:

Wydawnictwa naukowo-techniczne Price 75 zł

This Serbo-croat - Polish technical dictionary includes ~25 000 items from the fields of engineering, electrical engineering, building, mining and metallurgy. STI

13

A dictionary of microbial taxonomic usage. [A book]

Cowan, S. T.

x + 118pp. (1968) [39 ref. En] Edinburgh: Oliver & Boyd. Price 42s.

The plan of this dictionary is based on Fowler's 'A dictionary of modern English usage' [Oxford: Clarendon Press], and many of the entries are discussions of a subject rather than stilted dictionary definitions, and thus reflect the opinions of the author. The dictionary is restricted to words used or likely to be used in microbial taxonomy, which is interpreted broadly, as synonymous with systematics, to include classification, identification and nomenclature. The author regards the field of

taxonomy in general as 'the happy hunting ground of the semasiologist', and has excluded many of the highly specialized words used mainly by numerical taxonomists, with the aim of preventing their infiltration into the vocabulary of the microbial taxonomist. The dictionary is designed for use by microbiologists and a knowledge of ordinary technical terms used in this field is assumed; some fringe terms commonly used in other branches of microbial systematics (ecology, pathology, microscopy etc.) are briefly defined for the benefit of the taxonomist. CDA

14

[German-English glossary of financial and economic terms.] Deutsch-Englisches Glossarium finanzieller und wirtschaftlicher Fachausdrücke. [A book]

Gunston, C. A.; Corner, C. M.

5th Edition 1122pp. (1967) [De & En]

Frankfurt/Main: Fritz Knapp Verlag

In economics, more than in many other fields, ordinary terms tend to acquire special and restricted meanings. Moreover, economic concepts and their related terminology develop along different paths in different countries, thus increasing the risk or misinterpretation of foreign-language texts. The authors of the present glossary have greatly reduced this risk by showing the terms in action, i.e. by conveying the idea expressed by a word by its use in a particular context. For the many words with several meanings, each meaning is illustrated by an example in a relevant context. The inclusion of numerous, frequently used abbreviations and the absence of 'padding' enhance the value of the glossary. NdeV

15

[Technical dictionary of agricultural mechanization and provisional alphabetical index.

Vol. 1.] Technisches Wörterbuch der Mechanisierung in der Landwirtschaft. [A book]

France, Ministère de l'Agriculture

xvii + 227 + 49pp. (1968) [Fr, En, De, Es & It]

Antony, France: CNEEMA Price 165s [Centre Nat. d'Etudes et d'Experimentation de Machinisme Agricole]

This 2nd edition of the dictionary first published in 1959 contains entries for >7000 terms, grouped under the headings: 'General terms: field crops, animal husbandry, farm buildings, trading terms, plant diseases and insect pests'; 'Units'; 'Machinery parts'; 'General terms: machinery and agricultural improvements'; 'Engines and components, fuels and lubricants'; 'Tractors, walking tractors and main components'. There are separate alphabetical indexes in French, English, German, Spanish and Italian. JN

16

[Dictionary of basic Czech-English terms used in cooling and refrigeration technology.] Slovník základních česko-anglických Vyrazu z

chladireske a mrazireske Technologie. [A book]
Hruby, J.; Mrazek, J.
Technical publication 317 73pp. (1969) [Cs]
Prague: Stredisko Technickych Informaci
Potravinarskeho Prumyslu

17

[Dictionary of basic English-Czech terms used in cooling and refrigeration technology.] Slovník základních anglicko-českých Vyrazu chladireske a mrazireske Technologie. [A book]
Hruby, J.; Mrazek, J.
Technical publication 311 83pp. (1968) [Cs]
Prague: Stredisko Technickych Informaci
Potravinarskeho Prumyslu

18

Food processing and packaging directory. [A book]
Giacomi, R. de (Editor)
Tenth edition, 865pp. (1971) [En] London, UK: IPC Consumer Industries Press Ltd. Price £4
This fully revised 10th edition contains information on organizations classified according to: food processors; commodities; plant equipment; packaging materials; hygiene; brand names; consultants. A summary of food standards and regulations for 70 countries is included. JN

19

Food processing and packaging directory. [Book]
Giacomi, R. de (Editor)
Eleventh edition 835pp. (1972) [En] London EC1R 0NE, UK, IPC Consumer Industries Press Ltd. Price £4/-

This fully revised 11th edition contains information on organizations classified according to: food processors; commodities; plant equipment; packaging materials; hygiene; brand names; consultants. A summary of food standards and regulations for 70 countries is included. JN

20

Glossary of packaging terms. Standard definitions of trade terms commonly used in packaging. [A book]
Frank W. Green Co. (Editors)
4th edition vi+186pp. (1967) [En] New York, USA: The Packaging Inst. Inc. Price Members \$5.00, Non-Members \$6.50

This revised edition gives standard definitions of over 4000 trade terms commonly used in packaging. Appendices include: Weight and measures; Container dimensions; Containers and packaging tests; Miscellaneous abbreviations and explanations; Supplementary terms. JN

21

The dictionary of drink and drinking. [A book]
Mendelsohn, O. A.
ix+382pp. (1966) [En] London, Melbourne, Toronto: Macmillan. Price 45s.

This comprehensive dictionary covers the whole field of alcoholic drinks. Information relating to wines of the world, spirits of Europe, the United Kingdom, USA and other lands, brewed beverages, liqueurs and oriental specialities, is arranged in alphabetical order and fully cross-referenced. VJG

22

Beverage library.
Rector, E. P.
Cornell Hotel and Restaurant Administration Quarterly 10 (3) 81-83 (1969) [En] [Host International, Inc., St. Louis Airport, Missouri, USA]

The Hurty-Peck Library of Beverage Literature, containing 4 600 books in English and >16 000 titles catalogued is described, and some examples given. Their classification system is shown. PEG

23

[Concise brewery dictionary in five languages.] Priručni petijazyčný pivovarsko-sladařský slovník. [A book]
Palouckova, S.
111pp. (1969) [Cs] Prague, VU pivovarsko-sladařský. Price 40.- Kcs

Professional dictionary of the brewery ind., in English, French, German, Russian and Czech. STI

24

Elsevier's dictionary of horticulture. [A dictionary]
Nijdam, J.; Jong, A. de (Netherlands, Ministry of Agriculture and Fisheries) (Editors)
xvi+561pp. (1970) [En, Fr, Nl, De, Da, Sv, Es, It & Latin] Amsterdam, London, New York: Elsevier Publishing Co. Price 190s.

This 9-language dictionary is the successor to the 8-language Horticultural Dictionary [Dutch St. Publishing Co. (1961)] and differs from it in format and arrangement. The number of terms has been increased by ~40% to 4240, Italian has been added as the 9th language and the basic table is now in English. The terms included in the dictionary are derived from general horticulture; highly specialized and very general terms have been omitted. The basic table (in En) lists the terms alphabetically, each term is numbered and followed by its equivalent in the other 8 languages. Separate alphabetical indexes are supplied for each of these languages and these lead the user to the appropriate numbered entry in the basic table. JA

25

Fruit trades world directory 1971. [A book]

Tysser, H. F. (Editor)

371pp. (1970) [En] London, UK: Haymarket Publishing Ltd.

This world directory contains extensive summarized information on various aspects of the fruit trades. Sections are: Problems and prospects, (general and particularly over-production of apples) (pp. 19-22); World survey of fruit production, imports and exports, transport, processing in major trading countries (pp. 23-46); New packaging methods (pp. 49-55); Wholesale produce markets (development of new modern buildings, emphasis on quality, hygiene and sales presentation in Netherlands, France, USA, UK) (pp. 57-63); Containerization of perishable foods (handling methods, containers, refrigeration, temp. control for fruit) (pp. 67-71); Marketing and grading (pp. 74-77); Pre-packaging (statistics) (pp. 79-81); Encyclopaedia of fruits on the market (pp. 82-107); New fruits (pp. 108-109); Dictionary of Trade Terms (En, Fr, Es, De, It) (pp. 112-113); Fruit supply calendar (pp. 114-117); Controlled atmosphere storage and transport (pp. 118-120). Guides by country are also given, classified under: Fruit trade organizations (pp. 121-126); fruit shippers, import and export agents (pp. 129-232); type of fruit or fruit product (pp. 233-276); cold storage and transport (pp. 277-290); machinery and accessories suppliers (pp. 291-303); and producers and exporters of fresh fruit (pp. 305-350). ELC

26

Dictionary of technical terms relating to the potato. [A book]

Keller, E. R.; Zäh, A. (European Association for Potato Research)

111pp. (1969) [En, De & Fr] Wageningen, The Netherlands: European Association for Potato Res. Price f 15. - [Inst. für Pflanzenbau, Eidgenössische Technische Hochschule, Zürich, Switzerland]

This 3-language dictionary is an extended and revised version of the first edition produced in 1966. The book is divided into 3 sections. The first consists of an alphabetical list in En of the terms, each entry being followed by the equivalent term in Fr and De. The 2nd and 3rd sections consist of similar alphabetical lists in De and Fr. JA

27

Mushroom terms in five languages. [A book]

Bels-Koning, H. C. (Editor)

148 pp. (1966) [En, Fr, De, Da, NI] Wageningen: Centr. Agric. Publ. Docum. (Pudoc) Price Dfl 5.50 [Proefstation voor de Champignoncultuur, Horst, Netherlands]

This book contains ~300 terms of interest to

persons connected with mushroom research and industry. The terms are given in English, French, German, Danish and Dutch. A glossary of conversion tables (temp., wt. and measures, thermal units and heat transmission) is included. JA

28

Guide to the literature of the sugar industry. An annotated bibliographical guide to the literature on sugar and its manufacture from beet and cane. [A bibliography]

Schalit, M.

172pp. (1970) [Numerous ref. En] Amsterdam, London & New York: Elsevier Publishing Co.

The aim of this book is to aid workers in the sugar industry to find more easily information in their field. It is arranged into chapters as follows: Introduction (pp. 1-7); Bibliographies, abstracts and reviews, indexes and patents (pp. 8-19); Government publications (pp. 20-27); Dictionaries, directories and yearbooks (pp. 28-37); Publications on sugar economics (pp. 38-52); Periodicals (pp. 53-67); Organizations and their publications (pp. 68-84); Publications on agriculture and agronomy, including entomology, pathology and plant breeding (pp. 85-94); Publications on technology and sugar chemistry (pp. 95-113); Handbooks and tables (pp. 114-20); Publications on history and biography (pp. 121-32); and Translation and Translations (pp. 133-34). Brief details are given of each publication mentioned. The following appendices are included: Bibliography of American doctoral dissertations on sucrose, sugar, sugar beet and sugarcane since 1938 (pp. 135-48); Sugar Res. Foundation technical reports, 1945-53 (pp. 149-52); and Bibliography of papers presented at annual technical conferences of the British Sugar Corp. Ltd., 1948-66 (pp. 153-57). An author and organization index and a name of publication index are included. JA

29

[Five language dictionary of the confectionery industry.] Fünfsprachiges Süßwaren-Fachwörterbuch. [A book]

Staehle, H.; Mielert, H. (CAOBISCO)

429 pp. (1964) [De, En, Fr, It & NI] Hamburg, W. Germany: Benecke Verlag

This multilingual dictionary (English, French, Dutch, Italian, German) covers over 2200 technical terms used in the cocoa, chocolate, biscuit, confectionery and ice cream industries. The main classification is in the German language, where the numbered German terms are listed alphabetically, with the other language equivalents under each term. Access via the other languages is obtained through alphabetical lists for each language at the end of the dictionary which refer back to the equivalent German terms. The material is printed clearly and concisely. EJM

30

A handbook of sweet manufacturing terms. Glossary English-German. Ein Handbuch der Ausdrücke in der Süßwarenindustrie. Deutsch-Englische Spezialwörterammlung. [A book]
Gardner, K. J.
36pp. (Undated) [En & De] Devised and produced by Confectionery Production. Surbiton: Specialised Publications Ltd. Price 5s. DM 3. [Mars Ltd., Slough, England]

31

[F. O. Licht's International Sugar Economic Year Book and Directory 1969. World sugar statistics.] F. O. Licht's Internationales Zuckerwirtschaftliches Jahr- und Adressbuch 1969. Weltzuckerstatistik. [A book]
Ahlfeld, H. (F. O. Licht KG)
xlviii 410pp. (1969) [De, En & Fr] Ratzeburg, W. Germany: F. O. Licht KG

This directory, which largely consists of names, addresses and other details of firms and organizations connected with the sugar industry, contains the following sections: a reproduction (in De) of Decree No. 1009/67/EEC of the Council of Dec. 18th 1967 concerning organization of the sugar industry in the EEC (pp. 5-15); W. German sugar organizations (e.g. research institutes, trade associations) (21-38); international organizations (e.g. FAO, Int. Sugar Council) (39-41); sugar organizations in European (42-49) and other countries (50-53); firms importing and exporting sugar in Europe (59-77) and other countries (77-87); beet sugar factories and refineries in W. Germany (94-127), E. Germany (127-28), other W. European countries (133-65), E. European countries (166-76) and non-European countries (177-82); cane sugar factories and refineries of cane-producing countries (187-220); technical articles, namely 'Sugar beet cultivation without singling', by O. Neeb (225-33, De & En), 'Drying and cooling in the sugar industry', by H. J. Delavier (234-40, 3 ref., De & En) and 'The sugar trade within the EEC and with other countries' (241-60, De & En); a survey of equipment and apparatus used in the sugar industry and firms supplying this equipment, by H. J. Delavier (265-300, De & En); reports from various firms manufacturing equipment used in the sugar industry (305-79, De & En); list of firms producing equipment used in the sugar industry, presented under headings of types of equipment (listed alphabetically in German) (385-405). A 65pp. supplement, the 31st edition of F. O. Licht's 'World sugar statistics', is included which gives detailed data on sugar beet, sugar cane and sugar production, sugar imports, exports, consumption and prices, and molasses production, import and exports. JA

32

Agro-ecological atlas of cereal growing in Europe. II. [A book]

Broekhuizen, S. (Editor)

157pp. (1969) [Numerous ref. En, De & Fr]
Wageningen: PUDOC, Centre for Agricultural Publishing and Documentation. Amsterdam, London, New York: Elsevier Publishing Co. [Grain Centre, Wageningen, The Netherlands]

33

Multilingual glossary on terms of cereal chemistry and cereal processing. [A book]
Germany, E., Institut für Getreideverarbeitung der DDR
147 pp. (1966) [En, Fr, De & Ru] Leipzig: VEB Fachbuchverlag. Price DM 19 [Inst. für Getreideverarbeitung, Bergholz-Rehbrücke, Potsdam, E. Germany]

This multilingual glossary contains ~1000 special terms relating to analysis and processing of cereals and flour. It is the result of the activities of the study-group "Documentation" of the International Association for Cereal Chemistry (ICC). Compilation, revision and printing have been carried out by the Institut für Getreideverarbeitung, Bergholz-Rehbrücke, Potsdam. The numbered entries (pp. 1-92) are arranged alphabetically according to the English term with the corresponding French, German, Russian and in some cases the Latin term, listed below. French (pp. 95-112), German (pp. 113-27), Russian (pp. 133-47) and Latin (pp. 129-31) terms are arranged alphabetically and cross referred to the numbered entry. VJG

34

The bakers' dictionary. 2nd edition. [A book]
Daniel, A. R.
254pp. ISBN 0444 20121 1 (1971) [61 ref. En]
Barking, Essex, UK: Elsevier Publishing Co. Ltd. Price £3.50

35

World list of rice workers 1968. [A book]
Mao, Y. T.
vi + 104pp. (1968) [En] Rome, Italy: FAO [Field Crops Branch, Plant Production and Protection Div., FAO, Rome, Italy]

36

[Dictionary of the technology of fatty substances in five languages.] Dictionnaire de la Technologie des Corps gras en cinq langues.
Solomon, B. (France, Institut des Corps Gras)
62pp. (1971) [Fr, En, De, Es, It] Paris, France, Author

This dictionary lists 660 terms in French, English, German, Spanish and Italian. The terms in each language are arranged alphabetically and cross-referenced to the main entry in French. JN

37

1969 directory of dairy plant supplies.

Anon.

American Dairy Review 30 (12) 22-100 (1968) [En]

This directory is arranged alphabetically by product headings, the suppliers under each heading being listed in alphabetical order. FL

38

Dairy dictionary. Fachwörterbuch für die Milchwirtschaft. [A book]

Krüger, W.; Penner, E.

406pp (1969) [En, De, Ru, Bg, Hu, Pl, Ro & Cs]
Leipzig: VEB Fachbuchverlag. Price 45, -M

In this well-produced, 8-language dictionary, the 2126 terms are listed first in alphabetical order in German, each term being given a running reference number. For the other 7 languages, the terms are given twice, once in numerical (reference number) order, and once in alphabetical order. The dictionary is to be the 1st of a series of 9 books designed to give a wide survey of the dairy field and intended both for students and specialists. The titles of the other 8 books are given as: 'Milk production', 'Milk as a food', 'Market milk', 'Butter', 'Cheese and utilization of residual milk', 'Preserved milk', 'Dairy equipment and plant', and 'Economy of dairying enterprises'. HBr

39

[Dictionary of cheeses.] Dictionnaire des fromages.

[Book]

Courtine, R. J.

255pp. (1973) [8 ref. Fr] Paris VI^e, France,
Librairie Larousse

A very large number of cheese varieties is given alphabetically with the indication of the producing country and varying amount of information on their characteristics and manufacture. Cheese varieties produced in some individual countries are also grouped under the names of the particular country, and many recipes on the preparation of various cheese dishes are included. FL

40

Multilingual dictionary of fish and fish products. [A book]

Organization for Economic Co-operation and Development

xv + 431pp. (1968) [En & Fr] London: Fishing News (Books) Ltd. Price 150s. [OECD, Fisheries Division, 2 rue Andre Pascal, Paris-16e, France]

This excellent dictionary gives definitions, synonyms and marketing details in English and French for over 1100 fish and fish products. Indexes to each entry are provided in English, French, Latin, German, Danish, Spanish, Greek, Italian, Icelandic, Japanese, Norwegian, Dutch, Portuguese, Swedish, Turkish and Yugoslavian. JN

41

Dictionary of scientific terms used in meat technology. [A book]

Lomb, C.

54pp. (1966) [En, Fr, De & Ru]

~300 English terms are listed in alphabetical order, together with their French, German and Russian equivalents. JN

42

Food ingredients directory. [A book]

Anon.

103pp. (1971) [En] Hastings-on-Hudson, New York, USA: Food Ingredients Directory

The manufacturers and suppliers in the USA of ~1750 ingredients, chemicals and compositions used by the food processing industry are given. JN

43

A consumer's dictionary of food additives. [Book]
Winter, R.

235pp. (1972) [6pp. of ref. En] New York, New York 10016, USA, Crown Publishers Inc. Price \$3.95

This dictionary comprises an alphabetical listing of approx. 1000 food additives, giving notes on their origin, uses and properties. JN

44

[Food constituents.]

Anon.

Voeding en Techniek 3 (46) 1101-08 (1969) [Nl]

A list is given, for a wide range of foods and food components, of trade name (where applicable), manufacturer or handler (in The Netherlands), application and comments. Appended is a list of names and addresses of the handlers. HBr

GENERAL

45

[Medical properties of foods of vegetable origin.]
Lechebnye svoistva pishchevykh rastenii. [book]

Sklyarevskii, L. Ya.

271pp. (1972) [Ru] Moscow, USSR,

Rossel'khozizdat. Price 0.64 rouble

Chemical composition of plants and processing methods are covered with special reference to characteristics of compounds contained in plants. Chapter 2 discusses plants used as raw material for food production and their use in medicine. Individual kinds of plants are discussed including cereals, vegetables, oil crops, fruits, nuts, spices, and plants with special stimulating action. STI

46

Human senses in action. [Book]

Harper, R.
ix + 358pp. ISBN 0 443 00859 0 (1972) [many
ref. En] Edinburgh & London, UK, Churchill
Livingstone Price £4.00 [Dept. of Food Sci., Univ.
of Reading, Berkshire, UK]

This book consists of 2 parts: Problems and
methods (pp. 1-108); and The special senses and
their applications (pp. 109-316). Individual
chapters are: General orientation (pp. 1-23); Ways
of looking at the human senses (pp. 25-44);
Quantitative methods and their use (pp. 45-108);
The sense of sight (pp. 113-159); The sense of
hearing (pp. 161-192); The sense of taste (pp. 193-
235); The sense of smell (pp. 237-278); and Touch
and kinaesthesia (pp. 279-316). Aspects covered
include sensory properties of foods and
organoleptic evaluation. JA

47

[The food industry in a changing world.]

Gospodarka zywnosciowa w zmieniajacym sie
swiecie. [Book]

Los, J.
425pp. (1972) [many ref. Pl] Warsaw, Poland,
Panstwowe wydawnictwo ekonomiczne. Price 35 zl.

This book has the following chapters:
Introduction to problems of the food industry (pp.
19-55); Development of food production after the
2nd world war (pp. 55-185); Developments in food
consumption after the 2nd world war (pp. 185-
287); and Food industry balances, predictions and
nutrition policy (pp. 287-390). Various tables are
also given, together with a bibliography. STI

48

Seed to civilization. The story of man's food.

[Book]

Heiser, C. B., Jr.
xii + 243pp. ISBN 0 7167 0593 1 (cloth); 0 7167
0594 X (paper) (1973) [9pp. of ref. En] San
Francisco, California, USA, W. H. Freeman & Co.
Price \$7.50 (£3.60) cloth, \$3.50 (£1.50) paper
[Indiana Univ., Bloomington, USA]

This book discusses in an informal style the
origin of agriculture, the nature of man's basic food
plants and animals, and the essentials of current
and future food problems. Chapters are: The origin
of agriculture (pp. 1-14); Seeds, sex and sacrifice
(pp. 15-33); We are what we eat (pp. 34-39); Meat:
the luxury food (pp. 40-66); Grasses: the staff of
life (pp. 67-115); Poor man's meat: the legumes
(pp. 116-134); The starchy staples (pp. 135-162);
Man's most useful tree: the coconut (pp. 163-171);
Other plants for food, beverage and spice (pp. 172-
190); Evolution and breeding of man's
domesticates (pp. 191-201); and Let them eat cake?
(pp. 202-227). JA

49

Introduction to food science and technology.

[Book]

Stewart, G. F.; Amerine, A. A.
xiii + 294pp. ISBN 0 12 670250 0 (1973) [many
ref. En] New York 10003, USA & London, UK,
Academic Press, Inc. Price \$12.50 [Dept. of Food
Sci. and Tech., Univ. of California, Davis, USA]

An authoritative, integrated survey of the
fundamentals of food processing and preservation,
including nutrition, is presented under the
headings: Evolution of food processing (pp. 1-
27, 21 ref.); World food situation (pp. 28-61, 45
ref.); Food quality and its measurement (pp. 62-
96, 35 ref.); Human nutrition and food science and
technology (pp. 97-138, 19 ref.); Food processing
and preservation (pp. 139-204, 28 ref.); Packaging
foods (pp. 205-220, 5 ref.); Food safety and
environmental sanitation (pp. 221-252, 12 ref.);
Food laws and regulations (pp. 253-262, 2 ref.);
Careers in food science and technology (pp. 263-
273, 1 ref.). A 3-pp. author index and a 17-pp.
subject index are included. JN

50

Commercial food patents, U.S., 1969. [A book]

North, H. B. (Editor)
217pp. (1970) [En] Arlington, Virginia, USA:
Oliver S. North

This book contains 635 abstracts of most of the
significant US patents issued in 1969 on
compositions, processes and apparatus for
preparing food products and methods and apparatus
for packaging specific food products. It covers:
alcoholic beverages; baking and bakery products;
breakfast cereals; canning and preserving; cereal
grains and flours; coffee; confections; condiments
and seasonings and flavourings; dehydrated foods;
fats and oils; fish; freeze-dried and frozen
foods; fruits and vegetables; juices; meat packing
and meat products; milk and other dairy products;
poultry and egg products; proteins and protein
products; shellfish; shortenings; snacks; sugar; tea;
and other miscellaneous foods including nuts.
Assignee, inventor and patent number indexes are
included. AL

51

Commercial food patents, U. S., 1970. [A book]

North, H. B. (Editor)
249pp. (1971) [En] Arlington, Virginia, USA:
Oliver S. North

This book contains 690 abstracts of US commercial
food patents issued in 1970. The coverage is as in
the preceding abstr. AL

52

**Technological eating or where does the fish finger
point? [A book]**

Pyke, M.

vii + 114pp. ISBN 0 7195 2576 4 (1972)

[Numerous ref. En] London, UK: John Murray (Publishers) Ltd. Price £2.50

This book, which will be of more interest to the layman than to the food scientist covers, in general terms, advances over the last century in food production and processing methods. Chapters are: Traffic is people (pp. 1-5); The food producers (pp. 6-23, 16 ref.), which discusses margarine, sugar, bananas, meat and the green revolution; Change in the market place (pp. 24-42, 15 ref.), which covers such topics as chain stores, supermarkets, cash-and-carry establishments and domestic deep-freezing; Agribusiness supersedes farming (pp. 43-60, 15 ref.), which discusses changes in farming methods; Ethical implications (pp. 61-74, 12 ref.), covering factory farming, vegetarianism and kosher foods; Uniformity and convenience (pp. 75-92, 15 ref.), which discusses breakfast foods, biscuits, flour confectionery, bread, convenience foods and frozen foods; The disappearance of mealtimes (pp. 93-97, 3 ref.); and The future (pp. 98-107, 11 ref.). JA

53

Food science. [A book]

Charley, H.

vi + 520pp. (1970) [Numerous ref. En] New York, USA: Ronald Press Co. Price \$8.50 [Oregon St. Univ., Corvallis, USA]

This well laid out textbook is designed to serve as a college text for a basic course in the study of foods. Fundamental theoretical and practical aspects of the subject are covered under the headings: Evaluation of food (pp. 3-28, 17 ref.); Measuring (pp. 29-34, 4 ref.); Heat (pp. 35-44, 9 ref.); Water (pp. 45-61, 6 ref.); Ice crystals and frozen desserts (pp. 62-71, 9 ref.); Sugar crystals and confections (pp. 72-90, 4 ref.); Brews and infusions (pp. 91-108, 9 ref.); Starch (pp. 109-128, 10 ref.); Cereals (pp. 129-141, 13 ref.); Flour (pp. 142-158, 14 ref.); Leavens (pp. 159-170, 11 ref.); Quick breads (pp. 171-190, 10 ref.); Yeast bread (pp. 191-213, 20 ref.); Fats (pp. 214-236, 22 ref.); Pastry (pp. 237-247, 12 ref.); Emulsions (pp. 248-259, 12 ref.); Milk (pp. 260-287, 24 ref.); cheese (pp. 288-300, 7 ref.); Eggs (pp. 301-328, 29 ref.); Sponge and angel cake (pp. 329-339, 12 ref.); Shortened cakes (pp. 340-358, 20 ref.); Meat (pp. 359-394, 24 ref.); Poultry (pp. 395-402, 12 ref.); Fish (pp. 403-412, 16 ref.); Gelatin (pp. 413-417, 5 ref.); Legumes (pp. 418-424, 8 ref.); Fruits (pp. 425-453, 25 ref.); Vegetables (pp. 454-486, 49 ref.); Fruit pectin gels (jellies) (pp. 487-500, 27 ref.). A 17-pp. subject index is provided. JN

54

Food study manual. [A book]

Charley, H.

2nd edition xii + 275pp. (1971) [En] New York, USA: Ronald Press Co. [Oregon St. Univ., Corvallis, USA]

The purpose of this manual, which was first published in 1961, is to introduce the student to the main categories of food study and to emphasise the scientific principles involved in food preparation. Directions for laboratory work are included in series of experiments and exercises. The former are designed to illustrate the effects of variations in ingredients, in proportions of ingredients, and in techniques. The exercises give standard recipes for selected basic food products with directions for combining ingredients and cooking. Questions are provided at the end of each section. The book is divided into 11 parts, each containing several chapters. Part headings are: Basic information (pp. 1-26), covering evaluation of foods, measuring techniques, heat and water; Crystals (pp. 27-45), covering frozen desserts, sugars and sugar cookery; Beverages (pp. 47-55), covering coffee, tea and cocoa; Starchy foods (pp. 57-72), covering starch and starch cookery, cereals, flours and macaroni products; Breads (pp. 73-98), covering leavening agents, quick breads and yeast bread; Fats, pastry, emulsions, and salads (pp. 99-119), which also covers salad dressings; Dairy foods and eggs (pp. 121-150), covering milk, cheese and eggs; Cakes (pp. 151-164), covering sponge and angel cakes and shortened cakes; Meats, poultry, fish, legumes, and nuts (pp. 165-203), which also covers gelatin; Fruits and vegetables (pp. 205-234); and Food preservation (pp. 235-271), covering food spoilage, canning, freezing, drying, fruit pectin gels and food purchasing. Appendices (pp. 273-275) give instructions for washing dishes, directions for setting up a taste test experiment, and a list of essential laboratory equipment. JA

55

Proceedings of the Postgraduate Seminar on Food Technology. [A book]

Sammy, G. M. (West Indies, University of, Faculty of Engineering) (Editor)
244pp. (1971) [Numerous ref. En] St. Augustine, Trinidad, W. Indies: Univ., Dept. Chem. Eng.

Papers presented at the Postgraduate Seminar on Food Technology held on 24 April, 1971, at the University of the W. Indies, Trinidad, and issued by the University as Food Technology Series No. 5, include: The development of flavours during processing of tea, coffee and cocoa, by A. Lopez (61pp. 146 ref.); Preservation and processing of some tropical fruits, by C. Reginal Perez (35pp. 54 ref.); Preservation and processing of mangoes, by H. Clarke (38pp. 35 ref.); Dehydration of some tropical fruit juices, by W. Harnanan (25pp. 34 ref.); Processing potential of some tropical root-crops, by J. Forgenie (13pp. 17 ref.); Research report on the processing potential of yams (Dioscorea), by W. J. Steele (23pp. 4 ref.); Some

problems of fruit and vegetable processing in Trinidad and Tobago, by G. M. Sammy (17pp. 7 ref.). VJG

56

Food theory and applications. [A book]
Paul, P. C.; Palmer, H. H. (Editors)
xiv + 797pp. ISBN 0 471 67250 5 (1972)
[Numerous ref. En] New York, USA: John Wiley & Sons, Inc. Price £6.50 [Dept. of Food & Nutr., Univ. of Nebraska, Lincoln, USA]

The aims of this volume are to present the chemical and physical basis of food preparation in a form suitable for use as a textbook in college and university courses, to provide a reference source for research studies on food materials and processes, and to introduce the student to literature related to food-preparation problems. Brief resumes are also included on the role of energy in food preparation, current theories of the structure and organization of the protein macromolecule, unique properties of water, and similar factors that influence the properties and reactions of food materials. Chapters included are: Basic scientific principles, sugars, and browning reactions, by P. C. Paul (pp. 1-75, 183 ref.); Colloidal systems and emulsions, by P. C. Paul & H. H. Palmer (pp. 77-114, 60 ref.); Proteins, enzymes, collagen, and gelatin, by P. C. Paul (pp. 115-149, 71 ref.); Starch and other polysaccharides, by E. Osman, (pp. 151-212, 71 ref.); Fats as cooking media, shortening agents, and components of pastry, by M. Bennion (pp. 213-250, 101 ref.); Fruits and vegetables, by H. Charley (pp. 251-334, 321 ref.); Meat, by P. C. Paul (pp. 335-494, numerous ref.); Poultry and fish, by H. H. Palmer & J. Bowers (pp. 495-526, 137 ref.); Eggs, by H. H. Palmer (pp. 527-561, 177 ref.); Milk and milk products, by M. S. Palumbo (pp. 563-611, 118 ref.); Flour, by A. M. Campbell (pp. 613-648, 72 ref.); Flour mixtures, by A. M. Campbell (pp. 649-688, 63 ref.); Prepared and precooked frozen foods, by H. H. Palmer (pp. 689-699, 36 ref.);

57

Food theory and applications. [A book]
Paul, P. C.; Palmer, H. H. (Editors)
xiv + 797pp. ISBN 0 471 67250 5 (1972)
[Numerous ref. En]

[Cont. from preceding abstr.] Planning and conducting experiments, by D. L. Harrison (pp. 701-725, 29 ref.); Sensory methods in food-quality assessment, by H. H. Palmer (pp. 727-738, 41 ref.); and Physical and chemical tests of food quality, by M. Jacobson (pp. 739-777, 98 ref.). A 19pp. subject index is also included, with some relevant conversion tables. SAC

58

Food science and technology. [A book]
Pyke, M.
Third edition xvii + 228pp. ISBN 07195 2149 1 (1970)
[En] London, UK: John Murray. Price £2.50
This revised 3rd edition is divided into 3 parts: Scientific principles applied to food (pp. 3-37); Practical technology (pp. 41-178); and The training and employment of food technologists (pp. 181-213). The following chapters are included: Modern conceptions of chemistry, physics, biology (pp. 3-21); Traditional methods of processing food and their scientific significance (pp. 22-37); Cereal chemistry and technology (pp. 41-67); Meat, fish and poultry (pp. 68-89); Milk, cheese and eggs (pp. 90-108); Fats and oils (pp. 109-25); Sugar, syrup and soft drinks (pp. 126-31); Fruit and vegetables (pp. 132-50); Some modern technological processes (pp. 151-78); The present scope of food science and technology (pp. 181-97); and Food technology and the next forty years (pp. 198-213). 2 appendices: Daily intakes recommended by the Department of Health and Social Security; and The nutritive composition of representative samples of various foods, are included. VJG

59

Food and beverage industries: a bibliography and guidebook. [A book]
Vara, A. C.
215pp. (1970) [Numerous ref. En] Detroit, Michigan, USA: Gale Res. Co. Price \$11.50
[Business Section, Paley Library, Temple Univ., Philadelphia, Pennsylvania, USA]

This book, number 16 in a series of management information guides, should prove useful to research workers, librarians or students in directing them to source of information in their particular field within the food industry. The bibliography covers books, journals, governmental and institutional reports, etc., the majority being English language publications. The bibliography is divided into the following sections: Organization and development (pp. 11-30); Agriculture (pp. 31-40); Population (pp. 41-56); Transportation (pp. 57-67); Advertising and selling (pp. 69-79); Marketing: its elements, part I (pp. 81-89); Marketing: its elements, part II (pp. 91-105); Market structure trends (pp. 107-116); Store operations (pp. 117-125); Science and technology (pp. 127-139); and Food supply, industry organizations (pp. 141-156). References are listed alphabetically by authors' names. Appendices list relevant publishers, periodicals and organizations alphabetically. Author, subject and keyword-in-title indices are included. JA

60

Food industries manual. [A book]
Woollen, A. (Editor)
20th edition, 509pp. (1969) [Numerous ref. En]
London: Leonard Hill Books. Price 210s.

This comprehensive manual presents information of

interest to every branch of the food industry. It incorporates information on the significant advances made since the previous edition was published. In this revised edition jams and jellies are now incorporated in a new section on preserves. The section on fish processing has been enlarged and information on storage, refrigeration and handling has been combined into one section. The basic arrangement, i.e. an alphabetically arranged encyclopaedia of facts, data, tables, formulae, descriptions, recipes etc. has been retained. The information is arranged under 15 chapter headings: 'Baking', by J. F. Herringshaw (pp. 1-12, 17 ref.); 'Canning and freezing', by D. A. Herbert & J. D. Felmingham (pp. 13-56); 'Confectionery', by R. Lees (pp. 57-74, 11 ref.); 'The dairy industry', by J. G. Davis (pp. 75-158, 190 ref.); 'Dehydration', by C. G. Tucker (pp. 159-84, 84 ref.); 'Fats and fatty foods', by P. Brown & I. D. Morton (pp. 185-212, 67 ref.); 'Fish processing', by C. L. Cutting (pp. 213-47, 9 ref.); 'Fruit juices and fruit juice beverages', by J. Shacklady (pp. 248-79, 51 ref.); 'Meat and meat products' by F. Hill (pp. 280-302, 16 ref.); 'Flour and flour milling', by J. F. Herringshaw (pp. 303-25, 44 ref.); 'Nutrition', by A. E. Bender (pp. 326-47); 'Packaging', by F. A. Paine (pp. 348-88); 'Preserves', by J. R. Blanchfield (pp. 389-421, 35 ref.); 'Pickles and sauces', by J. R. Blanchfield (pp. 422-59, 30 ref.); 'Storage, refrigeration and handling', by F. H. Slade (pp. 460-497, 13 ref.). VJG

61

[Handbook of food products.] Spravochnik tovaroveda prodovol'stvennykh tovarov. [A book] Anon. 502pp. (1968) [Ru] Moscow, USSR: Ekonomika. Price 2 r. 41 k.

Topics covered include: organization of work; supply of goods; sampling; equipment for transport and storage of goods; road transport; transport in containers; specialized transport; packaging; international system of packaging units; measurement of heat; basic components of food products (proteins, enzymes, nucleic acids); storage; production technology of different food products (products from flour, semolina, fruit, vegetables and mushrooms). STI

62

[Handbook for food scientists. Vol. 2.] Spravochnik tovaroveda prodovol'stvennykh tovarov. [A book] Anon. 456pp. 249-456 (1969) [Ru] Moscow: Izdatel'stvo 'Ekonomika' [Cont. from preceding abstr.] 'Starch, sugar and honey' (pp. 249-62) by E. N. Barabanova. 'Confectionery' (pp. 263-324) by I. S. Lur'e covers caramel; jams and marmalade; fruit sweets; gâteaux; toffee; biscuits; gingerbread; crackers;

waffles; short pastry; halva; Turkish delight. 'Alcoholic beverages' (pp. 325-64) by E. S. Drboglav and I. S. Logotkin covers spirits; vodka; rum; whisky; brandy; table wines; aromatized wines; fruit wines. 'Mildly alcoholic and non-alcoholic beverages' (pp. 365-76) by I. S. Logotkin covers beer; mead; non-alcoholic carbonated and dessert beverages; syrups; drinks prepared from dried extracts; non-carbonated fruit beverages; kvass; natural and synthetic mineral waters. 'Tea and coffee' (pp. 377-404) by D. G. Oleinikov and E. G. Chinenova; and 'Spices, salt and tobacco' (pp. 405-35) by E. G. Chinenova, O. A. Rezvetsov, L. N. Glagoleva and G. L. Dikker. An 8-pp. index is included. HBr

63

[Handbook for food scientists. Vol. 2.] Spravochnik tovaroveda prodovol'stvennykh tovarov. [A book] Anon.

456pp. 1-248 (1969) [Ru] Moscow: Izdatel'stvo 'Ekonomika'

This well-produced vol. is divided into 11 different sections, each written by specialists in the particular field, and giving the basic composition and characteristics of the food(s) concerned, the manufacturing technology, packaging and storage characteristics, and defects and their sources. The sections are as follows: 'Meat and meat products' (pp. 5-88) by M. A. Gabriel'yants, V. V. Krylova and A. I. Barmash covers meat of cows, sheep, buffaloes, goats, camels, horses, deer and rabbits; by-products; poultry and game; sausages; smoked meat products; and preserved (canned) meat and meat products. 'Fish and fish products' (pp. 89-158) by B. P. Nikitin covers classification; consumer characteristics and chemical composition; quality requirements; handling and processing; live fish; imports; basic defects; and non-fish sea foods. 'Milk and milk products' (pp. 159-212) by L. N. Lovachev covers milk; cream; cultured milk products; conc. milk preserves; dried milk products; dried cultured milks and infant foods; ice cream; and cheese. 'Edible fat and mayonnaise' (pp. 213-34) by B. I. Khomutov covers animal fats; butter (by V. B. Tytkin); vegetable, confectionery and cooking fats; mayonnaise. 'Eggs and egg products' pp. 235-48) by M. A. Gabriel'yants covers hens eggs; frozen egg products; dried eggs. HBr

64

[Principles of food technology.] Osnovy tekhnologii pishchevykh proizvodstv. [A book] Babichenko, L. V. 184 + viii pp. (1969) [31 ref. Ru] Moscow, USSR: Izdatel'stvo 'Ekonomika'. Price 0.45 Rouble

This illustrated text-book, intended for students of mechanical engineering faculties of commerce univ., consists of the following chapters: 'Composition of foods' (pp. 3-31); 'Properties of foods' (pp. 32-45); 'Basic

methods of food processing' (pp. 46-65); 'Technology of manufacture of semi-processed and finished products' (pp. 66-165); and 'Brief characteristics of various dishes and culinary products' (pp. 166-76). An appendix presents shelf-life ranges and storage conditions for a variety of products (pp. 177-78). SKK

65

Principles of food science. 1. Food technology and biochemistry. [A book]

Borgstrom, G.
xii + 397pp. (1968) [Numerous ref. En] New York: Macmillan Co. Price 120s. [St. Univ., Michigan, USA]

This textbook discusses the handling, processing and packaging of food, including the essentials of practical food science, theoretical principles and modern findings. Volume 1 includes the following chapters: 'Man's food' (pp. 1-12), 'Food spoilage' (pp. 13-24), 'Food preservation in history' (pp. 25-51), 'Fundamental concepts - a glossary' (pp. 52-68), 'Basics of food and food preservation' (pp. 69-109), 'Packaging' (pp. 110-47), 'Refrigeration' (pp. 148-62), 'Thermal processing' (pp. 163-205), 'Freezing' (pp. 206-41), 'Dehydration and concentrates' (pp. 242-72), 'Salting (curing) and smoking' (pp. 273-89), 'Chemical preservation' (pp. 290-325), 'Sugar preserves' (pp. 326-32), 'Radiation preservation' (pp. 333-44) and 'Mechanical and other special methods of processing' (pp. 345-77). There is a 10pp. subject index. JN

66

Food science. [A book]

Potter, N. N.
xi + 653pp. (1968) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co., Inc. [Cornell Univ., Ithaca, New York, USA]

This comprehensive book is written in simple terms and assumes no previous training in food science. It contains many diagrams and illustrations and a 17 page subject index. Some chapters included are: 'Constituents of foods:

Properties and significance', pp. 36-57; 'Nutritive aspects of food constituents', pp. 58-74; 'Unit operations of the food industry', pp. 75-97; 'Quality factors and how they are measured', pp. 98-123; 'Deteriorative factors and their control', pp. 124-47; 'Heat preservation and processing', pp. 148-76; 'Cold preservation and processing', pp. 177-226; 'Food dehydration and concentration', pp. 227-79; 'Food irradiation and microwave heating', pp. 280-310; 'Food fermentations', pp. 311-28; 'Milk and milk products', pp. 328-72; 'Meat, poultry and eggs', pp. 373-404; 'Seafoods', pp. 404-18; 'Fats, oils and their products', pp. 419-39; 'Cereal grains and their processing', pp. 440-63; 'Vegetables, fruits and juices', pp. 464-93; 'Beverages', pp. 494-522; 'Confectionery and chocolate products', pp. 523-38; 'Food packaging', pp. 539-70; 'Water

kernel: hull ratio and low kernel oil content. A high inverse correlation was found between (ii) and (i) of kernels. There was little variation in (iv) content in kernels, (iv) of hulls varied

67

Food science and technology. [A book]

Pyke, M.
2nd edition x + 219 pp. (1968) [En] London: John Murray. Price 35s.

This 2nd revised edition of the text book 1st published in 1964 contains new appendices on: 'The development of dough', (p. 205); 'Sugar, syrup and soft drinks', (pp. 206-10); and 'Aseptic canning', (p. 211); in addition to the original features. JN

68

[The principle of gastronomic technology.]

Podstawy technologii gastronomicznej. [A book]

Koj, F.
375 pp. (1968) [Pl] Warsaw: WPL. Price 75,- zl.

The book, written for students of food technology and teachers at catering training schools, includes the fundamental technology and some problems of the organisation of work in catering establishments. The author further deals with the chemistry of colloids and the preparation of meals. STI

69

The biological efficiency of protein production. [Book]

Jones, J. G. W. (Editor)
xi + 385pp. ISBN 0 521 20179 9 (1973) [many ref. En] London NW1 2DB, UK, Cambridge University Press

This book reports the proceedings of a symposium held at the University of Reading, UK in Sept. 1971. The review papers presented included: Future demand for protein foods, by A. A. Woodham (pp. 27-36); Factors affecting demand for protein products, by J. C. McKenzie (pp. 37-44); Economics of protein production, by K. E. Hunt (pp. 45-66); The potential of cereal grain crops for protein production, by R. N. H. Whitehouse (pp. 83-99); Plants as sources of unconventional protein foods, by N. W. Pirie (pp. 101-118); and Conversion of agricultural produce for use as human food, by F. Aylward & B. J. F. Hudson (pp. 285-301). MJB

70

[Technology of agricultural products.]

Towaroznawstwo produktow rolnykh. [A book]
Wisniowski, K.
289pp. (1968) [Pl] Warsaw, Poland: Wydawnictwo
przemyslu lehkiego i spozywczego. Price 52 zl.

This practical handbook for research workers and students at agricultural institutes contains the following sections: protection of agricultural products from spoilage by cooling, freezing, drying, pasteurization, sterilization, biological filtration, UV rays and radiation, smoking, and chemical preservation; cereals (structure of cereal grains, chemical composition, classification, physical properties, changes during storage, methods of storage, cereal pests, milling products); vegetable oil production; potatoes (composition, properties, storage, products); sugar beet (composition, storage, sugar production); fruit and vegetables (composition, physical properties, classification, storage, processing); milk and dairy products; meat products; poultry; eggs; fish; fodder produced from wastes at food manufacturing plants. STI

71

[Raw materials and auxiliary materials in the food industry.] Surowce i materialy pomocnicze w przemyśle spozywczym. [A book]
Wisniowski, K.
327pp. (1968) [Pl] Warsaw, Państwowe Wydawnictwo
Szkolnictwa Zawodowego. Price 21 zl.

This book surveys auxiliary materials and raw materials, and their properties during storage. Sections include: the food industry and its basic raw materials; chemical composition of raw materials of agricultural origin used in the food industry; properties of raw materials and their effect on food products; basic conditions for storing raw materials, standardization of the materials, general description and chemical composition and keeping quality of fruit, noodles, mushrooms, grain, sugar beet, chicory, oilseeds, hops tobacco, cocoa, coffee, potatoes, fattened cattle, poultry, fish, milk and eggs; selected raw materials and products for industrial processing (molasses, sweetening agents, jellies, preserving agents, colouring matters, flavouring matters, meals of animal origin); water and its application in the food industry. STI

72

[Science of food products (fats, meat, fish and concentrates).] Tovarovedenie prodovol'stvennykh tovarov (zhiry, myaso, ryba, kontsentraty). [A book]
Varibrus, V. I.; Bakzevich, D. D.; Zhuravleva, M. N.; Smol'skii, N. T.
567 pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo
Ekonomika. Price 1.26 roubles

This handbook comprises 4 parts, each dealing with physical and chemical properties, food value, packaging problems and storage. The individual parts cover the following topics: edible fats;

composition and properties; oils of plant origin; rendered fats of animal origin; seafood and fish oils; hardened fats; margarine and shortenings; mayonnaise; eggs and egg products; meat and meat products; slaughter cattle; cattle slaughtering and processing; composition of meat and meat by-products; changes in meat after slaughtering; meat grading and classification; cold treatment and storage of meat and meat products; poultry meat; cured and smoked meat products; canned meat products; fish and fish products; morphology; chemical composition of fish; live fish; diseases of fish; processed fish and various ways of fish processing; seafoods; and food concentrates. STI

73

[Commodity studies of foods. Grain and flour, sugar, confectionery, dairy products, 'taste' products.] Tovarovedenie prodovol'stvennykh tovarov. Zernomuchnye, sakhar, molochnye, vkusovye tovary. [A book]
Zhuk, Yu. T.; Zhurzulevz, M. N.; Rush, V. A.; Fedotova, T. K.
709pp. (1970) [Ru] Moscow, USSR: Izdatel'stvo
Ekonomika. Price 1.49 rouble

This book describes a broad range of food commodities, giving principal chemical compositions and physical characteristics as well as outlines of industrial manufacturing processes. It is divided into 4 sections covering: grains, flour and bread, by M. N. Zhuravleva (pp. 3-165); sugar, starch products, honey and manufacture of confectionery, by T. K. Fedotova (pp. 166-365); milk and milk products, by V. A. Rush (pp. 367-531); and 'taste' commodities (beer, wine, spirits, tea, coffee, spices, food acids, salt and tobacco), by Y. T. Zhuk (pp. 532-703). BEPC

74

Eggs, cheese and yogurt processing.
Wilcox, G.
Food Processing Review, Noyes Data Corporation 17
vii + 280pp. SBN 8155 0350 4 (1971) [En] Park Ridge,
New Jersey 07656, USA: Noyes Data Corp. Price
\$35.00

This book is based on US patents relating to eggs, cheese, and yoghurt processing. The subject is covered under the headings: Whole eggs; Egg yolks; Egg whites; Egg products; Cottage cheese; Cheddar-type and process cheeses; Cream cheese and bakers' cheese; Mozzarella, Provolone and Parmesan cheeses; Miscellaneous cheese processes; and Manufacture of yoghurt. A company index, inventor index and US Patent Number index are provided. JN

75

Metric units, conversion factors and nomenclature

in nutritional and food sciences. [A booklet]
United Kingdom. Royal Society
 16pp. (1972) [10 ref. En] London, UK. Author

This report of the Subcommittee on Metrication of the British National Committee for Nutritional Sciences is divided into 5 parts: Introduction (pp. 3-4); Metric measurement (pp. 4-7); Adoption of the joule as the unit of energy (pp. 7-10); Terminology and matters of definition (pp. 10-14); References (p. 14); and Membership (p. 16). Aspects covered include: terms of reference; method of working; general conclusions; form of the report; simple changes from imperial to metric measure; legal definitions; problems of rounding in making conversions; the expression of concentration; conversion factors and methods of expression of the joule; factors limiting the adoption of the joule as the unit of energy; thermochemical tables; secondary factors to be used which involve the joule; terminology in energy metabolism; generic descriptors for the vitamins and equivalent quantities; internationally agreed equivalent quantities for vitamin A and niacin; and tentative equivalent quantities for vitamin D, vitamin E, "folacin" (or folic acid) etc. VJG

76

Commodity coding. Its effect on data recording and transfer. [A book]

National Computing Centre.
 128pp. (1968) [En] Quay House, Quay Street,
 Manchester 3, England: Author Price 30s

This book contains 3 sections: general, information flow and retrieval and particular commodity sectors. The final section (chapters 7-13) discusses how the principles of commodity codification, dealt with in the 1st 2 sections, apply to various industries and services, 1 chapter being concerned with the food and grocery trade. Sections in this chapter are suppliers' item reference code, industry group, classification code, product item definition and implementation. JA

NUTRITION

77

Human nutrition. Its physiological, medical and social aspects. [Book]

Mayer, J.
 xv+721pp. ISBN 0 398 02359 X (1972) [many ref. En] Springfield, Illinois, USA, Charles C. Thomas Price \$12.95 [Harvard Univ., Boston, Massachusetts, USA]

This collection of 82 essays, written by the author since 1959, is grouped into 10 sections as follows: Calories and needs for energy (pp. 11-73); Proteins, vitamins, minerals: needs for nutrients (pp. 75-144); The seven ages of man: from infancy to old age (pp. 145-281); Hunger and obesity (pp. 283-412); Inborn errors of metabolism and nutrition (pp. 413-453); Nutrition and disease

(pp. 455-572); The safety of foods (pp. 573-587); Dietetics (pp. 589-625); The White House Conference, Hunger and Nutrition Policy (pp. 627-666); and Nutrition and the world (pp. 667-721). Essays include: Food composition tables: basis, uses and limitations (pp. 38-60, 16 ref.); Food allergies (pp. 518-524, 3 ref.); Low-sodium diets (pp. 536-546, 2 ref.); Taste tests as diagnostic tools (pp. 564-569, 9 ref.); Food additives and nutrition: a primer (pp. 575-581, 5 ref.); and Food-borne diseases and consumer protection (pp. 582-587, 5 ref.). JA

78

Nutrition and development. [Book]

Winick, M. (Editor)
 vii+245pp. ISBN 0 471 95440 3 (1972) [many ref. En] New York, USA, John Wiley & Sons.
 Price £7.80

This book, Vol. 1 in the series, Current Concepts in Nutrition, is intended for nutritionists, dieticians, pediatricians and biochemists, and consists of the following chapters: Development of physiological regulations, by E. F. Adolph (pp. 1-25, 45 ref.); Enzyme development and nutrition, by I. T. Oliver and D. Yeung (pp. 27-48, 62 ref.); Nutrition and cell growth, by M. Winick, J. A. Brasel & P. Rosso (pp. 49-97, 120 ref.); Lipid metabolism and nutrition in the prenatal and postnatal period, by P. Hahn (pp. 99-134, 129 ref.); Hormonal and dietary factors in the development of digestion and absorption, by O. Koldovsky (pp. 135-200, 352 ref.); and Metabolic changes in children with protein-calorie malnutrition, by G. A. O. Alleyne, H. Flores, D. I. M. Picou and J. C. Waterlow (pp. 201-238, 159 ref.). A 7-pp. subject index is appended. JN

79

Newer trace elements in nutrition. [Book]

Mertz, W.; Cornatzer, W. E.
 xiii+438pp. (1971) [many ref. En] New York, USA, Marcel Dekker, Inc. Price \$26.50 [Human Nutr. Res. Div., USDA, Beltsville, Maryland 20705, USA]

These proceedings of the International Symposium on Newer Trace Elements, held in Grand Forks, N. Dakota consist of the following chapters: History and philosophy of trace element research, by E. J. Underwood (pp. 1-18, 32 ref.); Interactions in nutrition, by D. M. Hegsted (pp. 19-32, 15 ref.); Spectral characteristics of metals in metalloenzymes, by B. L. Vallee (pp. 33-50, 10 ref.); Role of selenium as an essential nutrient, by M. L. Scott (pp. 51-56); Factors that modify the toxicity of selenium, by O. A. Levander (pp. 57-83, 57 ref.); The detoxifying effects of selenium interrelations between compounds of selenium and certain metals, by J. Parizek, I. Ostadalova, J. Kalouskova, A. Babicky, & J. Benes

(pp. 85-122, 38 ref.); Chromium metabolism: the glucose tolerance factor, by W. Mertz & E. E. Roginski (pp. 123-153, 35 ref.); Metabolism of ^{51}Cr in human subjects normal, elderly, and diabetic subjects, by R. J. Doisy, D. H. P. Streeten, M. L. Souma, M. E. Kalafer, S. I. Rekant, & T. G. Dalakos (pp. 155-168, 8 ref.); Chromium nutrition in the mother and the growing child, by K. M. Hambidge (pp. 169-194, 28 ref.); The biological essentiality of vanadium, by L. L. Hopkins, Jr. & H. E. Mohr (pp. 195-213, 19 ref.); Studies on the essentiality of nickel, by F. H. Nielsen (pp. 215-253, 239 ref.); Newer aspects of copper and zinc metabolism, by R. I. Henkin (pp. 255-312, 50 ref.); Tin as an essential growth factor for rats, by K. Schwarz (pp. 313-326, 10 ref.);

JN

80

Newer trace elements in nutrition. [Book]

Mertz, W.; Cornatzer, W. E.
xiii + 438pp. (1971) [many ref. En] New York, USA, Marcel Dekker, Inc. Price \$26.50 [Human Nutr. Res. Div., USDA, Beltsville, Maryland 20705, USA]

[Continued from preceding abstr.] Decreased incorporation of L-cystine into skin protein of zinc-deficient rats, by J. M. Hsu (pp. 327-343, 12 ref.); Recent advances in emission spectroscopy and the determination of trace elements in biological materials, by W. A. Gordon (pp. 345-361, 6 ref.); Gas liquid chromatography of trace elements by M. L. Taylor (pp. 363-389, 21 ref.); Determination of trace elements in biological materials by spark-source mass spectrometry, by W. W. Harrison, M. A. Ryan, L. D. Copper, & G. G. Clemena (pp. 391-420, 20 ref.). A 13 p. author index to articles and references and a 4 pp. subject index are included.

JN

81

Getting the most out of food. The seventh in a series of studies on the modern approach to feeding and nutrition. [Book]

Van den Berghs Ltd.
95pp. (1972) [many ref. En] London, UK, Van den Berghs Ltd.

Three award-winning entries for the Van den Berghs 1971 Nutrition Award reprinted here are: Congenital malnutrition, by R. J. C. Stewart (pp. 15-35, 48 ref.); The causes of vitamin D deficiency in Britain - a critical review, by C. R. Paterson (pp. 37-62, 94 ref.); Enzyme reactivation studies - a new tool for the assessment of vitamin status, by J. K. Howard (pp. 63-80, 31 ref.). A paper on 'School catering and convenience foods', by H. W. M. Weeden (pp. 81-91) is also presented. JN

82

Getting the most out of food. The fifth in a series of studies on the modern approach to feeding and nutrition. [Book]

Van den Berghs Ltd.
127pp. (1969) [many ref. En] London, UK, Van den Berghs Ltd.

Papers presented at the 1968 series of seminars on "Getting the most out of food" are: The half-hour lunch hour, by M. Pinkerton (pp. 9-15); Nutrition in the home, by G. W. Lynch (pp. 16-23, 3 ref.); The changing pattern of school meals, by J. Halsall (pp. 24-32); The responsibility of the cookery writer, by M. Patten (pp. 35-46); Onus on the housewife, by K. B. Bamford (pp. 47-56); Is good food a fad? by J. Hawthorn (pp. 57-65, 6 ref.); Our Billy Bunter babes, by H. R. Gamsu (pp. 69-77, 14 ref.); Weight control problems of the teenager, by P. M. Mortimer (pp. 78-85); An adult approach to obesity, by P. Lebon (pp. 86-96, 7 ref.); This year, next year, by K. M. Clegg (pp. 99-106, 2 ref.); After 1984 - what? Protein foods of the future, by N. W. Pirie (pp. 107-117); The pacemakers - consumer or scientist? by C. B. Daniell (pp. 118-125). JN

83

Getting the most out of food. The sixth in a series of studies on the modern approach to feeding and nutrition. [Book]

Van den Berghs Ltd.
96pp. (1971) [many ref. En] London, UK, Van den Berghs Ltd.

Papers submitted for the Van den Berghs 1970 Nutrition Award reprinted here are: Nutritional problems of some of Britain's immigrants, by N. S. Butler (pp. 15-35, 9 ref.); A nutritional approach to dental caries, by D. B. Ferguson (pp. 37-59, 42 ref.); Getting the most out of food - for the elderly living alone (pp. 61-70). A paper on 'Dietary fats and the development of heart disease', by J. A. T. Saul, G. S. Boyd & A. T. James (pp. 73-85, 22 ref.) is also given. JN

84

Proteins in human nutrition. [Book]

Porter, J. W. G.; Rolls, B. A. (Editors)
xi + 560pp. ISBN 0 12 562950 8 (1973) [many ref. En] London NW1, UK, Academic Press Inc. (London) Ltd. Price £9.50 [Nat. Inst. for Res. in Dairying, Shinfield, Reading, UK]

This book is based on the proceedings of a NATO Advanced Study Institute on the Chemistry, Biology and Physics of Protein Evaluation held in Reading, UK on March 20-24, 1972. The book contains the following sections, each containing one or more chapters: Introduction (pp. 1-9); Protein supplies and requirements (pp. 11-138); The evaluation of protein quality (pp. 139-368); The

role of food science and technology (pp. 369-451); Some factors affecting the utilization of proteins (pp. 453-535); and Concluding remarks (pp. 537-540). Individual chapters include: World supplies of animal protein, by B. R. Stillings (pp. 11-33, 18 ref.); World supplies of plant proteins, by M. E. Jalil & W. M. Tahir (pp. 35-46, 1 ref.); World supplies of proteins from unconventional sources, by J. T. Worgan (pp. 47-74, 77 ref.); The efficient use of world protein supplies, by J. C. Abbott (pp. 75-91, 7 ref.); Some observations on the use of protein foods in nutrition, by P. R. Payne (pp. 119-122); The analysis of food proteins, amino acid composition and nutritive value, by J. Mauron (pp. 139-154, 41 ref.); Chemical scores and availability of amino acids, by A. E. Bender (pp. 167-178, 41 ref.); Evaluation of protein quality by dye-binding procedures, by A. L. Lakin (pp. 179-193, 58 ref.); Some observations on the use of microbiological techniques for the determination of protein quality, by H. Haenel and S. G. Kharatyan (pp. 195-206, 37 ref.); An improved procedure for the determination of available lysine and methionine with *Tetrahymena pyriformis*, by C. Shorrocks & J. E. Ford (pp. 207-223, 19 ref.);

0596 6 (paper) (1973) [many ref. En] San Francisco, USA, W. H. Freeman & Co. Price \$3.95 [Harvard Univ., Massachusetts, USA]

The subject is covered in a series of short articles by members of the 1969 White House Conference on Food, Nutrition and Health, under the sections: Improving the nutrition of those most vulnerable to hunger and malnutrition; Monitoring the wholesomeness and nutritional value of our foods; Improving education concerning nutrition; and Improving large-scale programs and agencies. The second section contains the following articles: Food manufacturing, by V. D. Ludington (pp. 87-91); New foods, by R. Gordon (pp. 92-103); Safety of foods, by J. M. Coon & J. C. Ayres (pp. 104-123); Distribution of food, by G. F. Bloom (pp. 124-139); Grading of foods, by E. M. Mrak & V. G. Mrak (pp. 140-149); Labelling, by J. Mayer (pp. 150-156); The family: nutrition and consumer problems, by E. O. Ellis (pp. 157-164); and Consumer problems in relation to the food industries, by R. J. McEwan (pp. 165-171). A 4-pp. bibliography and a 6-pp. subject index are appended. JN

85

Proteins in human nutrition. [Book]

Porter, J. W. G.; Rolfs, B. A. (Editors)

xi+560pp. ISBN 0 12 562950 8 (1973) [many ref. En]

[Continued from preceding abstr.] Objective of protein evaluation, by A. E. Harper (pp. 349-352, 2 ref.); Current status and problems in estimating protein quality and protein quality and protein requirements, by D. M. Hegsted (pp. 356-361, 3 ref.); New uses for fish proteins, B. Hallgren, L.-B. Sjöberg & J. Stelleman (pp. 369-381, 27 ref.); Factors governing the use of soya-bean and other oilseed proteins, by G. D. Rosen (pp. 383-395, 2 ref.); Quality control in industry, by D. Pearson (pp. 397-406, 34 ref.); Determination of functional properties of protein foods, by A.-M. Hermansson (pp. 407-420, 7 ref.); Flavour analysis of protein foods, by E. von Sydow, T. Persson & I. Qvist (pp. 421-424, 10 ref.); Evaluation of the textural properties of protein foods, by P. Sherman (pp. 425-437, 85 ref.); Some practical problems in food technology, by E. J. Rolfe (pp. 439-442); The value of amino acid supplementation, by H. Zucker (pp. 469-479, 6 ref.); Toxic factors in protein foods, by I. E. Liener (pp. 481-500, 49 ref.); Non-enzymic browning, by P. A. Finot (501-514, 22 ref.); and Some effects of processing on nutritive value, by J. E. Ford (pp. 515-529, 17 ref.). JA

86

U.S. Nutrition policies in the seventies [Book]

Mayer, I. (Editor)

xi+256pp. ISBN 0 7167 0599 0 (cloth), 0 7167

87

[Basic concepts in nutritional science.]

Grundbegriffe der Ernährungslehre. [Book]

Bässler K.-H.; Fekl, W.; Lang, K.

x+169pp. ISBN 3 540 06131 2 (1973) [De] Springer-Verlag, Berlin (West) & Heidelberg, Federal Republic of Germany; New York, USA Price DM 14.80; \$5.50 [Physiol.-Chem. Inst., Univ., Mainz, Federal Republic of Germany]

This well presented textbook explains the fundamental concepts encountered in nutritional science. After a brief introduction its various chapters deal with digestion and absorption; quantitative aspects of nutrition (energy balance); qualitative aspects of nutrition (carbohydrates, fats, hydroxy acids, proteins, etc.); various natural food components and contaminants (toxic proteins, etc.); changes in foodstuffs due to preparation and processing; dietetics and special types of nutrition; and future problems in nutrition. There are numerous tables and diagrams but bibliography references are not included. ADL

88

[Nutrition of children. Proceedings of a seminar held on the 27th and 28th Oct. 1970 in Prague, CSSR.] Detska vyziva. Shornik referatu ze seminaru. poradneho zavodni pobockou CVTS-VUPP-Strediska Technickych Informaci potravinarskeho prumyslu ve dnech 27-28 Rijna 1970. Praha. [A book]

Anon.

219pp. (1971) [Cs, en, dc, ru] Prague, Czechoslovakia: CAZ-VUPP-ZP-STI Price 135

Kes.

The following papers were read: Problems of baby food consumption; Baby food and food for children produced in Czechoslovakia and abroad; Trends in the nutrition of babies and children; Dried dairy foods for babies; Mechanization and automation in dried dairy baby food production; Present situation and perspectives of baby food manufacture in Czechoslovakia; Manufacture of fruit and vegetable juices for children in E. Germany; Trends in baby food production in Hungary; Fruit and vegetable hydrolysis by means of a pectinase preparation; Vitamin value of dairy products as compared with recommended allowances for children; Quick methods of toxic metal determination in baby food; Analytical, organoleptic, sanitary and microbiological problems of preserved baby food in Hungary; Technology, dietetics and economics of baby food production; and Processing methods and machinery for sterilized baby food. STI

89

Nutritional evaluation of food processing. [A book] Harris, R. S.; Loesecke, H. von (Editors) xviii+612pp. ISBN 0 87055 110 8 (1960, reprinted 1971) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc. [Dept. of Food Tech., Massachusetts Inst. of Tech., Cambridge, USA]

The main purpose of this book is to evaluate the known effects of processing upon the nutritional value of foods and to indicate how certain processing procedures may be altered to minimize losses in nutritional value. The book is divided into 13 main sections, each section containing one or more sub-sections. The main section headings are: Introduction. General discussion of stability of nutrients, by R. S. Harris (pp. 1-4); The effects of agricultural practices on the composition of foods (pp. 5-57); Effect of harvesting and handling practices on composition of unprocessed foods (pp. 58-108); Effect of commercial processing on the composition of fruits and vegetables (pp. 109-172); Effects of commercial processing of milk and milk products on nutrient content, by R. L. Wanner (pp. 173-196); Effect of commercial processing of cereals on nutrient content (pp. 197-237); Effect of commercial processing of oilseeds and oils on their composition (pp. 238-260); The effects of commercial processing on the nutrient composition of meat, poultry and fish products (pp. 261-304); Effects of packaging on maintenance of nutrients in food products, by M. Karel (pp. 305-336); [Continued in following abstr.] JA

90

Nutritional evaluation of food processing. [A book]

Harris, R. S.; Loesecke, H. von (Editors) xviii+612pp. ISBN 0 87055 110 8 (1960, reprinted 1971) [Numerous ref. En]

[Continued from preceding abstr.] Effects of commercial storage on the nutrient content of processed foods (pp. 337-390); Losses in nutrients during large-scale preparation for direct feeding (pp. 391-441); Losses in nutrients during home preparation of foods (pp. 442-491); Methods for increasing the nutritive value of foods (pp. 492-520); and Factors affecting utilization of food nutrients by the normal organism, by W. A. Krehl & J. J. Barboriak (pp. 521-541). Contributions by individual authors within the 13 major sections are: Foods of plant origin, by R. S. Harris (pp. 5-24); Foods of animal origin, by T. C. Byerly (pp. 25-49); Foods of plant origin, by H. W. von Loesecke (pp. 58-91); Foods of animal origin, by E. E. Rice (pp. 91-103); Washing, trimming, and blanching, by J. F. Feaster (pp. 109-126); Extracting, straining, and deaerating juices, by J. L. Heid (pp. 126-130); Pasteurization, sterilization, and storage, by J. L. Heid (pp. 131-133); Effects of ionizing radiations on food nutrients, by B. E. Proctor & S. A. Goldblith (pp. 133-144); Effect of antibiotics on nutrients in foods, by F. E. Deatherage (pp. 144-146); Effects of freezing on food nutrients, by J. L. Heid (pp. 146-148); Effects of drying and dehydration on food nutrients, by C. E. Hendel (pp. 148-157); [Continued in following abstr.] JA

91

Nutritional evaluation of food processing. [A book] Harris, R. S.; Loesecke, H. von (Editors) xviii+612pp. ISBN 0 87055 110 8 (1960, reprinted 1971) [Numerous ref. En]

[Continued from preceding abstr.] Concentration of juices, by J. L. Heid (pp. 157-158); Compression of dehydrated foods, by C. E. Hendel (pp. 159-161); Effects of fermentation on food nutrients, by C. R. Fellers (pp. 161-165); Effects of candying brined fruits on food nutrients, by C. R. Fellers (pp. 165-166); Wheat, by R. J. Dimler (pp. 197-204); Rice and rice products, by A. M. Altshul & R. W. Planck (pp. 204-214); Corn, by R. J. Dimler (pp. 214-216); Oats and oat products, by W. F. Geddes (pp. 217-224); Barley and barley products, by W. F. Geddes (pp. 224-226); Ready-to-eat cereal breakfast foods, by W. F. Geddes (pp. 227-229); Cereals for infants, by W. F. Geddes & R. A. Stewart (pp. 229-231); Effect of processing on cereal proteins, by I. E. Lienet (pp. 231-234); Effect of processing on composition of oilseeds, by V. L. Frampton (pp. 238-243); Effect of processing on composition of edible oils, by R. O. Feuge (pp. 244-258); Effects of processing on meat products, by B. S. Schweigert & C. H. Lushbough (pp. 261-276); Effects of processing on poultry products, by A. A. Klose (pp. 277-283); Effects of processing on fish products, by H. L. A. Tarr (pp. 283-300); Fruits and vegetables, by J. F. Feaster (pp. 337-

358); Cereal grains, by L. Zeleny (pp. 358-369); Storage of oilseeds, by V. L. Frampton (pp. 369-373); Edible oils, by R. O. Feuge (pp. 373-376); [Continued in following abstr.] JA

92

Nutritional evaluation of food processing. [A book] Harris, R. S.; Loesecke, H. von (Editors) xviii+612pp. ISBN 0 87055 110 8 (1960, reprinted 1971) [Numerous ref. En]

[Continued from preceding abstr.] Beef, lamb, pork, ham, veal, by B. S. Schweigert & C. H. Lushbough (pp. 376-381); Fishery products, by H. L. A. Tarr (pp. 381-385); Effects of large-scale preparation on nutrients of foods of animal origin, by F. Fenton (pp. 391-418); Effects of large-scale preparation on nutrients of foods of plant origin, by R. S. Harris (pp. 418-436); Effects of home preparation on nutrient content of foods of animal origin, by A. F. Morgan (pp. 442-461); Effects of home preparation on nutrient content of foods of plant origin, by R. S. Harris & R. K. Levenberg (pp. 462-484); Enrichment with vitamins and minerals, by G. F. Siemers (pp. 492-508); and Addition of amino acids, by R. J. Block (pp. 508-518). Bibliographies are included at the end of each main section. JA

93

[Food products and their nutritive value.] Produkty spozywcze i ich wartosc odzywcza: [A book]

Wysokinska, Z. 196pp. (1969) [Pl] Warsaw: Panstwowy zakad wydawnictwa lekarskich. Price 28 zl.

This book, written from the health and nutritional viewpoint, covers the calorific value of food; contents of insoluble compounds, water, and fat- and water-soluble vitamins; evaluation of nutritive value; composition of individual food groups (milk and milk products,

history of dietetics. Section 1, 'Nutrition in health and disease', contains the following chapters: Introductory. Definitions, difficulties, limits of error and action in nutrition (pp. 11-21, 11 ref.); Water (pp. 22-31, 2 ref.); The functions of food. (I) The supply of energy (pp. 32-79, 86 ref.); (II) The supply of body-building material (pp. 80-107, 34 ref.); (III) The supply of elements other than C, H, O and N (pp. 108-35, 61 ref.); (IV) The supply of vitamins (pp. 136-73, 46 ref.); Practical aspects of knowledge of calories, proteins, mineral elements and vitamins (pp. 208-32, 32 ref.); The digestion, absorption and metabolism of foods in health (pp. 180-207, 17 ref.); Normal dietetics (pp. 208-32, 32 ref.); and The feeding of infants (pp. 233-72, 19 ref.). [Continued in following abstr.] JA

95

Hutchison's food and the principles of nutrition. [A book]

Sinclair, H. M.; Hollingsworth, D. F. 12th edition vii+644pp. SBN 7131 4139 5 (1969) [Numerous ref. En] London, UK: Edward Arnold (Publishers) Ltd. Price £ 6

[Continued from preceding abstr.] Chapters in the 2nd section, 'The nature of foods', are: Foods taken mainly for energy purposes (pp. 273-336, 74 ref.); Foods taken chiefly for protein (pp. 337-45, 8 ref.); Foods taken chiefly for protein (continued) (pp. 346-404, 61 ref.); Foods taken for mineral elements and for vitamins A and C (ascorbic acid) (pp. 405-20, 12 ref.); Foods taken mainly for flavour. Condiments (pp. 421-26, 11 ref.); The processing and storage of foods (pp. 427-41, 10 ref.); The cooking of foods (pp. 442-61, 28 ref.); Hygiene of foods (pp. 462-69, 15 ref.); and Beverages (pp. 470-523, 20 ref.). The 3rd section, 'Diet in the treatment of disease', contains the following chapters: The principles for feeding in disease (pp. 524-43, 22 ref.); The principles of feeding in disease (continued) (pp. 544-99, 62 ref.); Some dietetic 'cures' and 'systems' (pp. 600-08, 6 ref.); and Artificial feeding and artificial and predigested foods (pp. 609-16, 6 ref.). JA

96

Symposium: sulphur in nutrition. [A book] Muth, O. H.

x+251pp. ISBN 0 87055 073 X (1970) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co., Inc. Price \$9.50 (US) \$10.50 (foreign) [St. Univ., Corvallis, Oregon, USA]

Papers presented at the symposium Sulphur in Nutrition' held at Corvallis, Oregon on Sept. 11-12, 1969 and co-sponsored by The Sulphur Institute of Washington, DC, and The Nutrition Research Institute of Oregon State University, are reported. The following chapters are included. The chemistry of the sulphur-sulphur bond, by J. L. Kice (pp. 6-30, 48 ref.); Implication of the sulphhydryl residues in the biological

94

Hutchison's food and the principles of nutrition. [A book]

Sinclair, H. M.; Hollingsworth, D. F. 12th edition viii+644pp. SBN 7131 4139 5 (1969) [Numerous ref. En] London, UK: Edward Arnold (Publishers) Ltd. Price £6

This 12th edition has been considerably altered and brought up to date to include recent developments, and the original title, 'Food and the principles of dietetics', has been slightly changed. Though primarily intended for nutritionists, and medical students and practitioners, the book should also be of interest to food scientists. There are 3 main sections each containing several chapters. The introduction (pp. 1-10, 4 ref.) outlines the

functioning of myosin, by A. Stracher (pp. 31-35, 11 ref.); Transmethylation reactions, by L. W. Parks (pp. 36-45, 50 ref.); Control of sulphur metabolism in mammals, by J. D. Finkelstein (pp. 46-60, 42 ref.); Sulphur requirements and metabolism of microorganisms, by H. D. Peck Jr. (pp. 61-79, 72 ref.); Sulphur requirements of the human, by M. E. Swendseid and M. Wang (pp. 209-21, 28 ref.); and Errors of sulphur metabolism, by S. H. Mudd (pp. 222-43, 80 ref.). VJG

97

Trace elements in human and animal nutrition. [A book]

Underwood, E. J.
3rd edition xiv + 543pp. (1971) [Numerous ref. En]
New York, USA: Academic Press, Inc. Price £11.20
[Inst. of Agric., Univ. of Western Australia,
Nedlands, Australia]

98

Tables of the amino acids in foods and feedingstuffs. Technical Communication No. 19.
Commonwealth Bureau of Animal Nutrition. [A book]

Harvey, D.
105pp. (1970) [251 ref. En] Farnham Royal, Bucks,
England: Commonwealth Agricultural Bureaux. Price
40s. [Commonwealth Bureau of Animal Nutrition,
Bucksburn, Aberdeen AB2 9SB, Scotland]

This publication is a revised and extended edition of the one printed in 1956. The booklet, which consists entirely of distribution tables is divided into the following sections: milk and milk products (including information on milk of 7 species), whey, cheese and milk protein; eggs and egg products; meat and meat products; animal products; fish and fish products; shellfish; cereals and cereal products; root vegetables; vegetables; fruits; dried legumes; nuts; seeds and nut meals; oil seeds; cakes and meals; and vegetable products. SPT

99

The composition of foods. Nutrient tables. Volumes I and II. Die Zusammensetzung der Lebensmittel. Nährwert-Tabellen. I. II. [A book]
Souci, S. W.; Fachmann, W.; Kraut, H.; Bosch, H.
363pp. + 318pp. (1969) [De] Stuttgart, W. Germany:
Wissenschaftliche Verlagsgesellschaft MBH
[Deutsche Forschungsanstalt für
Lebensmittelchemie, München, W. Germany]

With the publication of the final 200pp.-batch of loose-leaf tables, this exhaustive work on food composition, earlier parts of which appeared in 1962 and 1964, is now complete, bringing the number of foods covered to 600. Each food is assigned a separate table which gives analytical data on the major chemical

constituents, 13 minerals and trace elements, 14 vitamins and 12 amino acids, plus information on 'other constituents', as applicable. Means and ranges for individual constituents are expressed both as content of edible portion/1000 g food and as content/100 g edible portion. The tables are in 2 ring binders, as follows: I, milk, milk products, cheese, eggs and dried eggs, edible fats and oils, meat and offal, meat preserves and sausages, poultry and game, fish (including whales) and crustacea, and fish preserves; II, grain and flour, pasta-type products, vegetables, vegetable preserves and herbs, mushrooms and mushroom preserves, fruit and fruit preserves, fruit and vegetable juices and fruit-juice concentrates, high-sugar foods, alcoholic beverages, mineral waters, non-alcoholic beverages, yeasts and yeast products, and spices, mayonnaise, stock cubes, sauces and pastes (ketchup). HBr

100

[Cooking. II.] [A book]
Klimentova, M.

126pp. (1968) [Cs] Prague: Price 10.- Kcs.
This second part of the series "Family education" contains recipes for treatment and preparation of meat, game, poultry, fish, milk, cheese and eggs. STI

101

[Cooking. I.] Varení. I. [A book]
Brizova, J.

124pp. (1969) [Cs] Prague: Price 10.- Kcs.
This book, the first part of the series "Family education", contains chapters on health and nutrition, gastronomical rules, beverages, soups, hors d'oeuvres, main dishes and sweets. STI

102

[Nutritive substances, their investigation in food and the organism.] Vyzivné latky, ich sledovanie v potrave a organizme. [A book]

Vozar, L.
342pp. (1968) [Sk] Bratislava: ALFA. Price 30,- Kcs.

A review is given of the physiological effect and biochemistry of nutritive substances and the techniques of preparing a menu with a view to controlling the calorie consumption. A description of proteins, amino acids, water and mineral substances and vitamins is included. A guide to determining the fundamental nutrition parameters is included. The book is intended for workers in research and universities, and for those working in the food industry. STI

103

Getting the most out of food. The fourth in a series of studies on the modern approach to feeding and nutrition. [A book]

Van den Berghs, Ltd.

128pp. (1967) [En] London: Van den Berghs Ltd.

This booklet is the 4th in a series of studies sponsored by Van den Berghs Ltd., on the modern approach to feeding and nutrition. Papers presented at the 1967 series of seminars are arranged under the following 4 headings:

'Nutrition in an urban society'; 'Does nature know best'; 'The 3 ages of man' and 'The impact of new foods'. Papers reported are 'Nutritional facts and fallacies' by A. Brown, (pp. 9-16); 'This question of taste' by H. E. Nursten, (pp. 17-23); 'Food and the traveller' by C. W. Roundell, (pp. 24-34); 'Food for optimum health' by A. R. Gemmel, (pp. 35-42); 'The problem of wt. reduction' by J. Barnett, (pp. 43-53); 'The heart of the matter' by A. C. Frazier, (pp. 54-68); 'Feeding the young' by A. Holzel, (pp. 69-76); 'A review of newer concepts of nutrition in middle age' by R. Harrison, (pp. 77-84); 'Geriatric nutritional problems' by A. N. Exton-Smith, (pp. 85-98); 'The challenge of food production' by T. P. Parry, (pp. 99-106); 'New generation in the kitchen' by M. E. Beck, (pp. 107-15); 'Our changing high streets' by L. F. Tanner, (pp. 116-26). VJG

104

[Handbook of nutritive values. Nutrient, calorie and vitamin tables.] Handbuch der Nährwert-Kontrolle. Nährstoff-, Calorien-und Vitamin-Tabellen. [A book]

Facius, W.

3rd edition xv+235pp. (1968) [De] Cologne, Berlin, Bonn, Munich: Carl Heymanns Verlag KG

A feature of this book, which consists entirely of a series of tables, is the juxtaposition for each food listed of a so-called 'basic table' (giving the protein, fat, carbohydrate, calorie, mineral, crude fibre and water contents) and a 'vitamin table' (giving the vitamin A, carotene, thiamine, riboflavin, nicotinic acid and ascorbic acid contents). A further feature is that for each food listed in the basic and vitamin tables there is another table giving the contents of protein, fats, carbohydrates and calories present in 10-1000 or 100-10 000 g of the edible portion of the food concerned. The sources of the data are listed, the main one being Souci, Fachmann & Krauts' Composition of foods, Stuttgart, 1962. The total of ~400 foods covered is broken down into the following basic categories: milk, skim-milk, condensed milk, cream, dried milk, curd, cheese, eggs, meat and offal, poultry, game, including game birds, sausage and meat products, fish, fish products, fats and oils, grain and grain products, dough products, bread and bakery products, vegetables, edible fungi, fruit, jams, jellies and compotes, sugar, honey and confectionery, cocoa and chocolate, yeasts, spices and extracts, and fruit juices. An index of individual foods is included. HBr

105

[Dutch food tables.] Nederlandse Voedingsmiddelen Tabel. [A book]

Hartog, C. den

24th edition 34pp. (1968) [Nl] Laan Copes van Cattenburch 44, The Hague, The Netherlands: Voorlichtingsbureau voor de Voeding.

This booklet [publ. as an insert in Voeding (1969) 30 (1)] consists basically of a series of tables giving for a wide variety of foods their contents of the following constituents: protein, fat, carbohydrates, Ca, P, Fe, Na, K, vitamin A, β -carotene, thiamine, riboflavin, nicotinic acid, pyridoxine, and ascorbic acid. Their calorie content is also given. The foods are grouped under the following headings: potatoes, vegetables, fruit and fruit juices, nuts, pulses, grain, flour and flour products, bread, cakes and biscuits, milk and milk products, ice cream, cheese, fats, eggs, meat and meat products, game and poultry, fish and crustacea, canned soups, canned foods, sugar and syrup, beverages, and miscellaneous. Other data given include calorie and nutritional requirements of children, adolescents and adults and the crude fibre contents of the foods listed. HBr

ALLERGIES

106

Food allergy. Its manifestations and control and the elimination diets. A compendium. [Book]

Rowe, A. H.; Rowe, A., Jr.

xvi+687pp. ISBN 0 398 02395 6 (1972) [40 pp. of ref. En] Springfield, Illinois, USA, Charles C. Thomas. Price \$40.00. [School of Med., Univ. of California, San Francisco, USA]

This comprehensive textbook for allergists, internists, generalists and medical specialists confirms the causation of the many clinical manifestations of atopic allergy to inhalants and drugs and especially to foods. The subject is covered under the headings: Characteristics of food allergy (pp. 3-22); Diagnosis of allergy (pp. 23-40); Elimination diets (Rowe) in the control of food allergy (pp. 41-75); Control of inhalant allergies and of allergy to medications, animal sera, and transfusions (pp. 76-97); Gastrointestinal allergy (pp. 98-137); Chronic ulcerative colitis - allergy in its etiology (pp. 138-156); Regional enteritis - allergy in its etiology (pp. 157-164); Bronchial asthma because of food and inhalant allergy and less frequent drug and chemical allergy (pp. 165-210); Food allergy in chronic bronchitis (pp. 211-219); Role of food allergy in bronchiectasis (pp. 220-223); Food and inhalant allergy in obstructive emphysema (pp. 224-237); Perennial nasal and laryngeal allergy resulting from food and inhalant allergy (pp. 238-250); Ear allergy (pp. 251-265); Atopic dermatitis (eczema) resulting from food and other allergies (pp. 266-295); Urticaria - its allergic causes (pp. 296-311); Acute localized edema

(angioneurotic edema) (pp. 312-321); Allergic headache and migraine (pp. 322-333). (Continued in following abstr.) JN

107

Food allergy. Its manifestations and control and the elimination diets. A compendium. [Book]

Rowe, A. H.; Rowe, A., Jr.

xvi+687pp. ISBN 0 398 02395 6 (1972) [40 pp. of ref. En]

[Continued from preceding abstr.] Cerebral and neural allergy (pp. 334-355); Allergic fatigue and toxemia resulting from food allergy (pp. 356-363); Ocular allergy (pp. 364-408); Urogenital allergy - bladder allergy (pp. 409-425); Diagnosis and control of the causes of hematological allergy (pp. 426-434); Food allergy and the arthropathies (pp. 435-443); Fever resulting from food allergy (pp. 444-447); Clinical allergy in infancy and childhood (pp. 448-499); Cardiovascular, glandular, renal, hepatic, and constitutional effects with blood changes from allergy (pp. 500-511); Prevention of elective, exploratory, and emergency surgery by the recognition and control of atopic allergy, especially to foods (pp. 512-519); Immunological aspects of food allergy, by Arthur Lietze (pp. 520-530); Individual food and drug allergies and their control (pp. 531-593). An extensive 39-pp bibliography and a 30-pp. subject index are appended. JN

PROTEIN FOODS

108

Protein deficiency and pesticide toxicity. [Book]

Boyd, E. M.

x+468pp. ISBN 0 398 02476 6 (1972) [many ref. En] Springfield, Illinois, USA, Charles C. Thomas [Queen's Univ., Kingston, Ontario, Canada]

The effects of dietary protein deficiency on the toxicity of insecticides, herbicides and fungicides are described under the main headings: Kwashiorkorogenic diets (pp. 5-143); Organochlorine insecticides and protein deficiency [chlordane, dicophane, endosulfan, endrin, lindane, toxaphene] (pp. 147-240); Organophosphorus insecticides [demeton, diazinon, dimethoate, malathion, parathion] and protein deficiency (pp. 243-311); Carbamate insecticides [carbaryl] and protein deficient diet (pp. 315-326); Herbicides [chlorpropham, diuron, monuron] and protein deficient diet (pp. 329-359); Fungicides [captan] and protein deficiency (pp. 363-396); General conclusions (pp. 399-436). Each main heading generally covers several chapters, each with its own bibliography. A 9-pp. author index to references and a 22-pp. subject index are provided. JN

109

Proteins and food supply in the Republic of South Africa. [A book]

Claassens, J. W.; Potgieter, H. J. (Editors)

526pp. (1971) [Numerous ref. En, Af]

Capetown, R. of S. Africa: A. A. Balkema

This book consists of a series of review papers on aspects of food resources in South Africa, read at an international symposium held at the University of the Orange Free State. Chapters include: Protein food outlook, by S. J. du Plessis (pp. 1-14, 36 ref.); The soil as a factor in protein production, by R. du T. Burger (pp. 39-45, 3 ref.); The food resources of South Africa with special reference to proteins and amino acids, by D. G. Haylett (pp. 47-61, 17 ref.); The potential of crop food production in South Africa, by J. H. Hofmeyr, H. A. Kotze & D. J. G. Smith (pp. 63-69, 19 ref.); Genetic improvement in the nutritive value of maize, by F. X. Laubscher & P. G. Celliers (pp. 71-76, 9 ref.); The bean in a national dietary pattern, by W. A. Odendaal (pp. 77-87, 29 ref.); The nutritional value of some edible wild fruits and plants, by A. S. Wehmeyer (pp. 89-94, 8 ref.); The leaf protein nutritional value of four wild plants used as dietary supplements by the Zulu, by O. A. M. Lewis, B. M. G. Shanley & E. F. Hennessy (pp. 95-102, 9 ref.); Marine resources of South Africa, by R. W. Rand (pp. 103-128, 19 ref.); The contribution of the fishing industry to the protein supply of the Republic of South Africa, by G. M. Dreosti (pp. 129-144, 16 ref.); [Continued in following abstr.] DMK

110

Proteins and food supply in the Republic of South Africa. [A book]

Claassens, J. W.; Potgieter, H. J. (Editors)

526pp. (1971) [Numerous ref. En, Af]

[Continued from preceding abstr.] The culture of freshwater fish for food, by D. Hey (pp. 145-150, 10 ref.); Sea plants: a source of protein for man and animals, by R. H. Simons (pp. 151-160, 27 ref.); The future of beef as a source of protein in the diet of people of the Republic of South Africa, by F. N. Bonsma (pp. 161-178, 14 ref.); Pig products as a source of animal protein, by J. H. Hofmeyr (pp. 179-183, 12 ref.); Poultry products as a source of animal proteins, by W. C. J. Viljoen (pp. 185-191, 16 ref., Af); Indirect and direct losses of meat in slaughter cattle and sheep, by J. van Marle (pp. 193-207, 55 ref.); The availability and utilization of protein from milk in the Republic of South Africa, by J. W. Claassens, B. H. Bester & K. H. Fourie (pp. 209-218, 12 ref.); Effect of fertilizing veld and established pastures on animal production in South Africa, by P. Hildyard & B. D. H. van Niekerk (pp. 219-230, 25 ref.); The extent of biological nitrogen fixation in South Africa, by N. Grobbelaar & B. W. Strijdom (pp. 291-305, 29 ref.); Protein from petroleum, by T. F. Gaskell (pp. 307-314); Factors influencing yeast protein

synthesis in molasses media, by S. I. de Bruin & P. M. Lategan (pp. 315-326, 15 ref.); Green microalgae as a possible source of food protein, by H. Kraut (pp. 327-334); Evaluation of protein quality, by J. W. G. Porter (pp. 335-344, 33 ref.); The biological value of protein mixtures, by E. Kofranyi (pp. 345-353, 13 ref.); [Continued in following abstr.] DMK

111

Proteins and food supply in the Republic of South Africa. [A book]

Claassens, J. W.; Potgieter, H. J. (Editors)
526pp. (1971) [Numerous ref. En, Af]

[Continued from preceding abstr.] The background of protein deficiency in an urban community, by A. D. Moodie & W. Wittmann (pp. 355-359, 9 ref.); The clinical nature and extent of protein malnutrition in South Africa, by P. J. Pretorius (pp. 361-369, 22 ref.); Protein shortage and food supply in the Usambara region of Tanzania, by H. Kraut (pp. 399-410); Methods of combating malnutrition, by J. P. de Wit (pp. 411-418, 10 ref.); Composition of a food mixture developed at the NNRI for supplementation of predominantly cereal diets, by J. J. Dreyer & D. B. du Bruyn (pp. 419-428, 27 ref.); Supplementary effect of the NNRI food mixture on cereal proteins, by J. J. Dreyer (pp. 429-449, 6 ref.); Mineral and vitamin efficiency of the NNRI food mixture, by D. B. du Bruyn (pp. 451-464, 16 ref.); The acceptability of and recommended usage procedures for PVM (NNRI food supplement), by V. A. Cachia (pp. 465-474); The preparation and keeping quality of the PVM food mixture, by F. S. Schweigart (pp. 475-485, 7 ref.); Development, production and marketing of high-protein foods, by H. J. H. de Meulenaere (pp. 487-500, 2 ref.); Biological and chemical contamination of protein feed of animal origin, by L. W. van den Heever (pp. 501-517, 45 ref., Af); The symposium of proteins and food supply in review, by H. N. Munro (pp. 519-526, 9 ref.). DMK

112

Amino acid fortification of protein foods. [A book]

Scrimshaw, N. S.; Altschul, A. M. (Editors)

xxv+664pp. ISBN 0 262 19091 5 (1971)

[Numerous ref. En] Cambridge, Massachusetts, USA: MIT Press Price \$25.00

This book is based on the 1st International Symposium on Amino Acid Fortification of Protein Foods, held at MIT, Massachusetts, USA on Sept 16-18, 1969. The subject is covered under the general headings: Background of the protein problem (pp. 3-59); Prospects for increased protein supplies (pp. 63-154); Experimental evidence for the value of amino acid fortification (pp. 157-298); Criteria for evaluating the benefits

of nutrition intervention programmes (pp. 302-433); Feasibility and commercial aspects of amino acid fortification (pp. 437-537); Comparison of alternate strategies for meeting human protein needs (pp. 541-614); Statement of the United Nations Protein Advisory Group on amino acid fortification of protein foods (pp. 617-636, 57 ref.). Over 40 papers are given in full, including: Potential for new protein sources, by S. R. Tannenbaum (pp. 139-150, 19 ref.); and Technological aspects of adding amino acids to foods, by F. R. Senti & J. W. Pence (pp. 467-478, 11 ref.). Detailed author and subject indexes are given. JN

CATERING

113

[Balkan cookery.] Balkanska kuchyne. [A book]

Skvor, Z.
32pp. (1968) [Cs] Prague: Prace. Price 5.- Kcs.

This cookery book mentions Roumanian, Bulgarian and Yugoslavian dishes and their peculiarities. Recipes for some interesting dishes and their preparation are given. The contents include soups (sour chorbas and cold soups), fish dishes, meat dishes (roast, baked, grilled and spit-grilled, fried), vegetable dishes (with tomatoes, red pepper, marrow, cucumbers, spinach, bean shoots, cabbage, cauliflower, white cabbage, wine leaf, leek, onion, celery, beans, potatoes), dzuvech, rice dishes, pastries, sweets, egg dishes milk products, salads, and a note on coffee. STI

114

[South Bohemian cookery book.] Jihoceska kucharka. [A book]

Hanzlicek, M.

128pp. (1968) [Cs] Ceske Budejovice: Svaz ceskych novinaru Price 10,- Kcs.

Some traditional, regional meals, specialities of southern Bohemia, are described, especially soups, game, poultry, potatoes, mushrooms, sweets, fish, savouries and beverages. STI

115

[Cumulative review of the literature on Korean foods (1917-1968).] [A book]

Korea, Institute of Science & Technology, Food Resources Laboratory

764pp. (1971) [Ko] Seoul, S. Korea: Korean Society of Food Science and Technology

116

Portuguese food. [A book]

Wright, C.
x + 214pp. (1969) [En] London UK: J. M. Dent & Sons Ltd. Price 35s.

This book which contains >200 recipes for preparation at home is divided into several sections. Each section is devoted to a particular area of Portugal and gives a description of the area and recipes for dishes from that area. A short Portuguese-English glossary of common foods is included. JA

117

Practical low protein cookery. [A book]
Krawitt, L. P.; Weinberger, E. K.
xiv + 110pp. (1971) [En] Springfield, Illinois, USA:
Charles C. Thomas

This book contains a collection of some 85 low-protein recipes (for soups, salads, bread, main dishes and desserts) designed primarily for patients suffering from urinaemia. The recipes include calculations of Na, K, protein and calorie contents, and note whether cholesterol is present or absent. A one-week menu plan, providing 30-33 g protein/day, incorporates some of the recipes and protein foods with high biological value to provide essential amino acids. AL

118

Guide to foodservice management. [Book]
Wilkinson, J. (Editor)
v + 184pp. ISBN 0 8436 0554 5 (1972) [many ref. En] Illinois, USA, Institutions/Volume Feeding Magazine. Price \$9.50

This collection of articles from publications of the National Association of College and University Food Services consists of the following: Let's put management into focus, by R. Rogers (pp. 1-4); Performance standards - management tool, by R. Guyon (pp. 5-10); Making middle management effective, by G. D. Smith (pp. 11-13); Management training programs, by W. T. Umbreit (pp. 14-21); Key to management meeting success, by R. D. Buchanan (pp. 22-34); Communication, by R. D. Buchanan (pp. 35-42); There's profit in listening, by R. P. Smith (pp. 43-45); Evaluation as a forecasting tool, by W. K. Miller (pp. 46-48); What can the computer do?, by G. Tavis (pp. 49-52); Computer-assisted menus, by S. Levy (pp. 53-68); Computer programs that work, by T. P. Root (pp. 69-72); Tests for food management contracts, by T. W. Minah (pp. 73-79); Creating a successful foodservice, by J. C. Birchfield (pp. 80-84); The future of prepared foods, by H. Zaccarelli (pp. 85-88); Convenience foodservice systems, by R. D. Buchanan (pp. 89-96b); Industrial engineering principles sharpen foodservice design, layout, by S. C. Prokosch (pp. 97-108); Equipment + design = foodservice efficiency, by J. C. Friese (pp. 109-112); Why do they eat when they do? by S. Haack (pp. 113-119); Implementing continuous meal service, by D. P. Alfonso, J. C. Miller & J. C.

Friese (pp. 120-122). (Continued in following abstr.) JN

119

Guide to foodservice management.
Wilkinson, J. (Editor)
v + 184pp. ISBN 0 8436 0554 5 (1972) [many ref. En]

(Continued from preceding abstr.) Too many food plans? Charge it! by J. Birchfield, (pp. 123-136); Setting up a sanitation program, by W. L. Mallman, (pp. 137-141); Conducting a cook's workshop, by L. E. Horton (pp. 142-145); Public relations via radio tapes, by E. Higgins (pp. 146-153); An Englishman views U. S. foodservice, by M. A. Roberts (pp. 154-157); Monotony breakers for foodservice (pp. 158-175); Bibliography: centralized foodservice; convenience food systems, by R. D. Buchanan (pp. 176-184). JN

120

Food service in institutions. [A book]
West, B. B.; Wood, L.; Harger, V. F.
4th edition 702pp. (1966) [Numerous ref. En] New York, London & Sydney: John Wiley & Sons, Inc. Price 122s [Division of Inst. Management, St. Univ., Columbus, Ohio, USA]

This well illustrated basic text and reference book on quantity food service management consists of 3 sections. Section 1, 'Quantity food service' includes: 'Development of food services in institutions', (pp. 3-30); 'Meat planning, food standards, and service', (pp. 31-68); 'Food selection and storage', (pp. 69-176); 'Food products and their preparation', (pp. 177-298). Section II, 'Organization and administration', deals with: 'Organization and management', (pp. 301-34); 'Administrative leadership', (pp. 335-58); 'Personnel management', (pp. 359-96); 'Cost control', (pp. 397-463); 'Sanitation and safety', (pp. 464-524). Section III, 'Physical facilities' contains the chapters: 'Floor planning and layouts', (pp. 527-87); 'Equipment for kitchens and serving rooms', (pp. 588-640); 'Furnishings and equipment for dining rooms', (pp. 641-75); The appendix (pp. 676-93) deals with plans for the organization of college residence halls. There is an 8 pp. subject index. JN

121

Professional food preparation. [A book]
Terrell, M. E.
viii + 596pp. ISBN 0 471 85201 5 (1971) [Numerous ref. En] New York, USA: John Wiley & Sons Inc. [Univ., Seattle, Washington, USA]

This book is designed to serve as a text for students of large-quantity cooking. The principles are covered with a discussion of large-quantity

methods and a description of the operation and care of equipment commonly used in large kitchens. The Subject is divided into 4 sections, each with its own bibliography and is covered under the headings: Organization of food production; Utensils and small equipment; Aspects with general application in food production; Vegetable processing equipment; Steam cooking equipment; Preparation of fruits and vegetables; Sauce preparation; Soup production; Pantry equipment - refrigeration equipment, work tables, slicing machine, and beverage equipment; Salads and salad dressings; Sandwich making; Meat preparation and cooking equipment; Dairy products and eggs; Poultry; Fish and shellfish; Selection and preparation of beef; Selection and preparation of veal; Selection and preparation of lamb; Pork and variety meats; Bakery equipment - mixer bun cutter, dough roller and sheeter, proof box; Bread making; Cakes and cookies; and Pastry fillings and puddings. Each chapter has a list of laboratory experience and review questions and answers. Appendices include: Equivalent measures of foods; Food quantities for 100 portions; Definition of terms in food preparation; and List of tables. A subject index is included. JN

122

[Norms for hot meals.] Normy teplych jidel. [A book]
Anon.

461 pp. (1968) [Cs] Prague: Zajmove sdruzeni pro rozvoj verejneho stravovani. Price 38,- Kcs.

This book was written for workers in catering institutions, to facilitate the preparation of better quality meals. It includes information on: basic norms; recipes for the utilization of tinned meat; a list of ready-made soups (produced by Vitana); a survey of losses and yields; meat standards. STI

123

[Flaming and flavouring of food dishes.] Flambovani a dochucovani jidel. [A book]
Srkal, A.

77pp. (1969) [Cs] Prague, Czechoslovakia: Merkur. Price 5 Kcs

Flaming is a very fast process which must not change the basic properties of food; the object is to improve the flavour in all respects. Basically it comprises heating the food by means of burning spirit in which it has been previously soaked. If, at the termination of the flaming process, gravy or juice is added to the food and the mixture is flavoured with pepper or other spices, flaming can be combined with flavouring. The book is intended for catering institutions as well as for the household. Illustrations and recipes for flaming are included. STI

CHEMISTRY

124

Encyclopedia of food chemicals.

Anon.

Food in Canada 29 (4) 51-74 (1969) [En]

Many chemicals which may be incorporated in foodstuffs are listed alphabetically together with the purpose for their addition, the forms in which they are available and the Canadian regulations covering the amounts which may be added to each type of food. RPC

125

[Fundamentals of food chemistry.] Grundzüge der Lebensmittelchemie. [A book]

Heimann, W.

xxiv + 610pp. (1969) [Numerous ref. De] Dresden, E. Germany: Theodor Steinkopff [Inst. für Lebensmittelchemie, Univ., Karlsruhe, W. Germany]

This well-produced introduction to the science of food chemistry consists of 3 sections.

Section 1 is entitled Fundamentals of the science of nutrition, and contains the following chapters: Purposes of nutrition (pp. 3-4); Fundamentals of nutrition (pp. 5-236), covering proteins, fats and lipids, carbohydrates, minerals and trace elements, vitamins, enzymes; Nutritional requirements (pp. 237-41); Nutrient contents of food (pp. 242-43); Food digestion (pp. 244-46); Behaviour of foods during cooking (pp. 247-49); and Food preservation (pp. 250-81), covering physical and chemical methods and processing. Section 2 (pp. 282-546) covers the individual foods, grouped under various categories (meat and meat products; fish, fish products, crustaceans; eggs and egg products; milk and dairy products; cheese; edible fats and oils; grain and grain products; vegetables and vegetables preserves; fruit and fruit preserves; sugar and sugar products; sweeteners, alcoholic beverages, herbs and spices, foods containing alkaloids; water; household equipment, such as pots and pans, crockery, cutlery). The 3rd section, entitled State control of trade in food, covers legislation in W. Germany (by H. Sperlich) (pp. 548-71) and in E. Germany (by E. Thymian) (572-86). A 24-pp. subject index is included. HBr

126

[Fundamentals of food chemistry.] Grundzüge der Lebensmittelchemie. [Book]

Heimann, W.

2nd edition. xxvii + 620pp. (1972) [many ref. De] Dresden, German Democratic Republic, Verlag Theodor Steinkopff. Price M 43.20 [Inst. für Lebensmittelchemie, Univ. Karlsruhe, Federal Republic of Germany]

This comprehensive work is divided into 4 main sections: Fundamentals of food science, subdivided into the following chapters - Aims of nutrition, Food constituents, Nutritional requirements, Nutritive contents of foods, Digestion of food, Behaviour of foods during processing, and Food preservation; The individual foods; Official control of the food trade, subdivided into the chapters: The food trade in the Federal Republic of Germany, and German Democratic Republic. A 6-pp. list of books for further reading and a 24-pp. subject index are also included. HBR

127

Biochemistry of foods. [A book]

Eskin, N. A. M.; Henderson, H. M.; Townsend, R. J.

vii + 240pp. ISBN 0 12 242350 X (1971)

[Numerous ref. En] New York, USA: Academic Press Inc. Price £5.85 [Dept. of Foods and Nutr., Univ. of Manitoba, Winnipeg, Canada]

This book offers an introduction to the basic chemical and biochemical aspects of various foods and emphasizes the importance of biochemistry in the field of food science. Essential biochemical changes involved in the conversion of natural biological materials into utilizable nutrients are discussed, as well as changes involved in processing, mechanical injury and deterioration of foods. The book will be of interest to students of food science, biochemistry and nutrition, and to those engaged in food production and research. Chapters are: Biochemical changes in foods: meat and fish (pp. 1-29, 110 ref.); Biochemical changes in foods: plants (postharvest changes in fruits and vegetables) (pp. 31-68, 129 ref.); Browning reactions in foods (pp. 69-108, 124 ref.); Enzymes in the food industry (pp. 109-151, 75 ref.); and The biodeterioration of foods (pp. 153-217, 81 ref.). JA

128

Food and drugs. [A book]

Tooley, P.

280pp. SBN 0 7195 2031 2 (boards edition) 0 7195 2032 0 (limp edition) (1971) [En] London, UK: John Murray (Publishers) Ltd. Price £2.85 [Dept. of Chem., St. Osyth's Coll., Clacton, Essex, UK]

This book, the 4th in the series Chemistry in Industry, is intended primarily as a source of background material for science teachers. Chapters are: Introduction (pp. 1-12); Food chemistry (pp. 13-91); Crop protection (pp. 92-158); Pain-killers (pp. 159-210); and Fighting infection (pp. 211-273). Sections within the food chemistry chapter are: the chemical nature of foods, food preservation by chemical means, food additives biochemical processes (e.g. alcoholic fermentation), and starch production. The book contains numerous photographs and a subject index. JA

129

[Chemical substances for foodstuffs conservation.] Khimicheskie konservanty dlya pishchevykh produktov. [A book]

Lemeshek, K.; Khodorovskaya, -.

103pp. (1969) [Ru] Moscow, Pishchevaya promyshlennost. Price 44 k.

This book, intended mainly for workers in the food preservation industry, contains the following sections; utilization of chemical compounds for food preservation; physico-chemical and antibacterial properties of preserving agents; evaluation of the disinfectant activity of formic acid, sulphur dioxide, sulphites, sodium hydrogen

bisulphite and metabisulphite, benzoic acid, sodium benzoate, esters, sorbic acid, propionic acid, nitrates, sodium diacetate, formaldehyde, hexamine, boric acid, diphenyl, phenylphenol, hydrogen peroxide; directions for the use of preserving agents for food manufacture in some selected states; antioxidants: butylhydroxyanisole, butylhydroxytoluene, the esters of some acids, tocopherol, hydroquinone, coumarin, vanillin, ascorbic acid, citric acid, tartaric acid, phosphoric acid, ethanolamine. STI

130

[Organic chemistry for technicians in the food industry.] Chemia organiczna dla technikow przemyslu spozywczego. [A book]

Bijok, F.; Bijok, B.

276pp. (1968) [Pl] Warsaw: PWSZ Price 13 zl.

A general textbook of organic chemistry for technicians, containing some references to food components. STI

131

[Handbook of food chemistry. Vol. I. Components of food.] Handbuch der Lebensmittelchemie. Die Bestandteile der Lebensmittel. Erster Band. [A book]

Schormüller, J. (Editor)

xxvii + 1288pp. (1965) [Numerous ref. De] Berlin, Heidelberg, New York: Springer-Verlag Price DM 298 (Subscription Price DM 238.40)

This comprehensive and well-referenced volume includes the following chapters: 'History of food science', by E. Hanssen & W. Wendt (pp. 1-75); 'Tasks and problems of food science', by O. Högl (pp. 76-99); 'Water' by L. Riedel (pp. 100-22); 'Minerals and trace elements', by H. Langendorf (pp. 123-66); 'Amino acids, peptides, proteins and other nitrogenous compounds', by H. D. Belitz & J. Schormüller (pp. 167-307); 'Fats, lipids, waxes and resins', by W. Wachs (pp. 308-61); 'Volatile oils', by K. Herrmann (pp. 362-89); 'Carbohydrates, glycosides', by A. Klemer (pp. 390-513); 'Naturally occurring glycosides', by A. Klemer (pp. 514-48); 'Tannins', by H. Endres (pp. 549-618); 'Plant phenols in foods', by K. Herrmann (pp. 619-48); 'Natural dyes, excluding myo- and

haemoglobin', by E. Bayer & W. Voelter (pp. 649-748); 'Haemoglobin and myoglobin', by R. Hamm (pp. 749-56); Carbonic acid, esters, carbonyl compounds and rarely occurring alcohols', by J. Schormüller & W. Grosch (pp. 757-820); 'Enzymes', by K. Mybäck (pp. 821-933); 'Vitamins', by G. Brubacher et al. (pp. 934-1059); 'Chemical additives - definition, classification, tolerance and usage', by S. W. Souci (pp. 1060-68); 'Chemical additives, A. Preservatives', by W. Diemair & W. Postel (pp. 1069-1133); 'Chemical additives. B. Dyes used for colouring foods', by R. König (pp. 1134-158); and 'Further chemical additives', by S. W. Souci & E. Mergenthaler (pp. 1159-1222). EJM

132

[Handbook of food chemistry. Vol. III. Part 1. Foods of animal origin - milk, butter, cheese.] Handbuch der Lebensmittelchemie. Band III. Teil 1. Tierische Lebensmittel - Milch, Butter, Käse. Schormüller, J.; Kiermeier, F. (Editors) xxvii + pp. 1-878 (1968) [Numerous ref. De] Berlin; Heidelberg; New York: Springer-Verlag. Price DM 490 for Pts I & II

The basic scheme of presentation in this high standard work is by individual product, in a series of separate, specialized articles. Part 1 includes: Economic significance of milk, by F. Kiermeier (pp. 01-7); Properties of milk, by O. Kirchmeier (pp. 19-64); Microbiology of milk, by H. Frank (pp. 65-110); Milk production and processing, by L. Eisenreich (pp. 111-128); Factors affecting the composition of milk, I-II, by E. Renner (pp. 129-43); III, by H. Johannsmann (pp. 144-64); Types of milk on the market, by E. Steger (pp. 165-97); Testing of milk, I-IV, by R. Kern et al. (pp. 198-292); V, by H. Frank (pp. 293-315); Types of milk other than cows' milk, by E. Steger (pp. 316-34); Dairy products other than butter and cheese, by H. Hostettler (pp. 335-446); Butter: general aspects and manufacture, by L. Eisenreich (pp. 447-76); Properties of butter, by E. A. Glitscher (pp. 477-517); Economic significance of cheese, by E. Bauer (pp. 527-33); Cheesemaking, I-III, by H. Mair-Waldburg (pp. 534-74); IV, by H. Mair-Waldburg & W. Sturm (pp. 575-624); Properties of cheese, I, by H. Mair-Waldburg (pp. 625-27); II, by C. Heinrich (pp. 628-42); III, by R. Lübenau-Nestle & H. Mair-Waldburg (pp. 643-87); IV, by W. Ritter (pp. 688-750); Factors affecting the composition and properties of cheese, I, by H. Mair-Waldburg (pp. 751-55); II-V, by B. Wauschkuhn (pp. 756-78); Cheese packaging and effect of the package, by G. Stehle (pp. 779-98); Analysis of cheese, I, by C. Heinrich & R. Lübenau-Nestle (pp. 799-801); II, by H. Mair-Waldburg (pp. 802-03); III (pp. 804-38) & IV (pp. 839-47) by C. Heinrich; V, by J. Sauer (pp. 848-51); VI, by R. Lübenau-Nestle & H. Mair-Waldburg (pp. 852-57); Cheesemaking aids, by H. Mair-Waldburg (pp. 858-62); Milk protein and whey products, by G. Demmler (pp. 863-74); and Pointers for food law interpretation, by K. G. Bergner & H. E. Haller (pp. 875-77). HBr

133

[Handbook of food chemistry. Vol. III. Part 2. Foods of animal origin - Eggs, meat, fish, buttermilk.] Handbuch der Lebensmittelchemie. Band III. Teil 2. Tierische Lebensmittel - Eier, Fleisch, Fisch, Buttermilch. Schormüller, J.; Kiermeier, F. (Editors) xvi + pp. 879-1641 (1968) [Numerous ref. De] Berlin; Heidelberg; New York: Springer-Verlag. Price DM 490 for Pts I & II

Part 2, contains the following articles: Eggs, by W. Rauch (pp. 879-961); Meat: Economic significance and general aspects, by L. Schön (pp. 962-88); Properties of meat, I, by H. Linke (pp. 989-97); II-III, by R. Grau (pp. 998-1063); IV, by H.-J. Sinell (pp. 1064-75); Factors affecting condition and composition of meat, by R. Grau (pp. 1076-1149); Preparation and processing of meat, by K. Möhler (pp. 1150-96); Analysis of meat, I-II, by R. Grau (pp. 1197-1229); IV, by H. Linke (pp. 1230-38); V, by H.-J. Sinell (pp. 1239-66); Meat juice, meat extract, soups and sauces, condiments, by R. Grau (pp. 1267-1304); Pointers for food law interpretation, by K. G. Bergner & H. E. Haller (pp. 1305-08); The fishing industry and its biological basis, I-IV, by K. Lillelund (pp. 1309-35); V, by N. Antonacopoulos (pp. 1334-40); Fish products, by N. Antonacopoulos (pp. 1341-98); Factors affecting the composition of fish and fish products (biochemistry and microbiology), by V. Meyer (pp. 1399-1481); Analysis and evaluation of fish and fish products, I-IV, by N. Antonacopoulos (pp. 1482-1537); V, by V. Meyer (pp. 1538-48); Arthropods and molluscs, by P. F. Meyer-Waarden (pp. 1549-92); Marine mammals, by K. Schubert (pp. 1593-1608); Pointers for food law interpretation, I, by K. G. Bergner & H. E. Haller (pp. 1609-10); II, by N. Antonacopoulos (pp. 1611-13); and Buttermilk, by F. Kiermeier (pp. 1614-24). Each article has its own literature references. Part 2 contains a useful 17-page index to the whole of vol. III. HBr

134

[Handbook of food chemistry. Vol. IV. Fats and lipids.] Handbuch der Lebensmittelchemie. Band IV. Fette und Lipoide (lipids). [A book] Schormüller, J.; Heimann, W. (Editors) xxiii + 1111 pp. (1969) [Numerous ref. De] Berlin, Heidelberg, New York: Springer Verlag. Price DM 340

This authoritative work is made up of a series of individual sections each contributed by a specialist in the field. These are: 'Economic significance of edible fats', by K. F. Gander (pp. 1-8); 'Vegetable and animal fats (excluding milk fats) - occurrence, production, composition, properties, application', by H. Wissebach (pp. 9-180, numerous ref.); 'Technology of edible fats and fat production', by K. F. Gander (pp. 181-288, 159 ref.); 'Spoilage and storage of fats and fat products', by H. v. Pezold (pp. 289-355, numerous ref.); 'Microscopic examination of oil-bearing fruits and seeds', by K. Hummel (pp. 356-401, 7 ref.); the main section 'Analysis of fats and

companying substances, by H. Pardun (pp. 402-487, numerous ref.), which is divided into a general part, including sections on samples preparation, qualitative testing, physical (e.g. separation of fatty acid mixtures), chemical methods, special techniques for determination of major components, minor components and impurities, fat spoilage and selected methods for waxes and phosphatides, and a special part, covering individual fats or groups of fats; and 'Pointers for food law application', by K.-G. Bergner (pp. 1089-92). A 19-p. subject index is included. HBr

35

Handbook of food chemistry. Vol. V. Part I. Carbohydrate-rich foods. [Handbuch der Lebensmittelchemie, Band V. Teil I. Kohlenhydratreiche Lebensmittel.] [A book] Schormüller, J.; Acker, L. (Editors) xxi + 819pp. (1967) [Numerous ref. De] Berlin, Heidelberg, New York: Springer-Verlag. Price DM 128 (Subscription Price DM 182.40)

The sections, each written by an authority on the subject, making up the 1st of this well-produced, 2-part vol. are as follows: Cereals and cereal flour products, by M. Rohrlisch & B. Thomas (pp. 1-162, numerous ref.); Starch, by G. Graefe (163-194, 55 ref.); Microscopic examination of starch and milling products, by A. T. Czaja (195-292, 89 ref.); Bread, bakery products and baking aids, by A. Schulz, A. Rotsch & A. Menger (293-384, numerous ref.); Microscopic examination of bread, bakery products and baking aids, by A. T. Czaja (385-93, 17 ref.); Legumes fruits, by L. Wassermann (394-419, 69 ref.); Microscopic examination of legumes, by A. T. Czaja (420-36, 11 ref.); Cereal-based dietetic foods, by R. Franck (437-44, 15 ref.); Farinaceous products: A. Raw materials, manufacture, changes, by A. Menger (445-66, 66 ref.); B. Analysis and evaluation of farinaceous products and their components, by L. Acker (467-90, numerous ref.); Honey and synthetic honey, by H. Duisberg (491-559, numerous ref.); Microscopic examination of honey, by J. Evenius & E. Focke (560-90, 31 ref.); Sugar: A. Beet and cane sugar, by F. Schneider (591-636, 62 ref.); B. Glucose syrup (starch syrup), starch sugar and dextrose (grape sugar), by G. Graefe (637-65, numerous ref.); C. Other types of sugar and syrup, by G. Graefe (666-94, numerous ref.); D. Malt extract and malt syrup, by H. Viermann (695-710, 53 ref.); Sugar products, by A. Fincke (711-37, 64 ref.); Ice cream: A. General concept and food law evaluation, by J. Klose (738-44, 22 ref.); B. Manufacture (technology), by E. Loeser, (745-58, 7 ref.); C. Analysis, by W. Pelz (759-66, 20 ref.); and Baker's yeast, by R. Kautzmann & W. Zoberst (767-88, numerous ref.). A 31-pp. subject index is included. HBr

Handbuch der Lebensmittelchemie. Band. V. Teil 2. Obst, Gemüse, Kartoffeln, Pilze. [A book] Schormüller, J.; Acker, L. (Editors) xxi + 608pp. (1968) [Numerous ref. De] Berlin, Heidelberg, New York: Springer-Verlag. Price DM 174.60 (Subscription Price DM 139.70)

Part 2 contains the following articles: Fresh fruit, by H. Drews (1-75, numerous ref.); Preserved fruit: A. Deep-frozen fruit, by J. Gutschmidt (76-92, 59 ref.); B. Canned and bottled fruit, by A. S. Kovacs (93-114, 27 ref.); C. Dried fruit (including freeze-dried and fruit powder), by K. Herrmann (115-26, 39 ref.); D. Candied fruit, by K. Herrmann (127-30, 39 ref.); Fruit products: A. Jam, marmalade, jelly, compote and related products and semi-manufactured products, by K. Herrmann (131-75, 95 ref.); B. Fruit juices, sweet must, concentrates, manufacturing juices and syrups, by K. Herrmann (176-238, numerous ref.); C. Fruit juice drinks and other non-alcoholic beverages, by E. Benk (239-58, 70 ref.); Microscopic examination of fruit and fruit products, by A. T. Czaja (259-310, 27 ref.); Fresh vegetables, by P. Nehring (311-61, numerous ref.); Preserved vegetables: A. Deep-frozen vegetables, by J. Gutschmidt (362-94, numerous ref.); B. Canned and bottled vegetables, by P. Nehring (395-432, numerous ref.); C. Pickled vegetables, by F. Martens (433-50, 57 ref.); D. Dried vegetables, by K. Herrmann (451-56, 24 ref.); E. Tomato juices, other tomato products and other fruit juices by K. Herrmann (457-72, 62 ref.); Potatoes and potato products, by H. Mohler & H. Sulser (473-506, numerous ref.); Edible fungi and their preserves, by W. Böttcher (507-37, numerous ref.); Microscopic examination of vegetables, salads, herbs, and edible fungi, by A. T. Czaja (538-62, 41 ref.); and Microbial production of foods, by F. Reiff (563-76, 22 ref.). A 32-pp. index is included. HBr

137

Handbook of food chemistry. Vol. VI. Alkaloid-containing foods, spices, cooking salt. [Handbuch der Lebensmittelchemie. Sechster Band. Alkaloidhaltige Genussmittel, Gewürze, Kochsalz.] [A book] Schormüller, J. (Editor) xxiii + 770pp. (1970) [Numerous ref. De] Berlin, Heidelberg, New York: Springer-Verlag, Price DM 248 (Subscription Price DM 198.40)

The latest vol. in this comprehensive series on the chemistry of foods follows the same pattern as the preceding vol., each chapter being written by a specialist in the field. The following chapters are included: 'Coffee', by H. Streuli (pp. 1-95); 'Coffee substitutes and additives', by H. Beitter & C.-H. Schröder (pp. 96-138); 'Tea and microscopic analysis of tea', by J. Wurziger (pp. 139-75); 'Tea substitute, mate and cola nut', by K. Hummel (pp. 176-209); 'Cacao and chocolate', by H. Lange & A. Fincke (pp. 210-309); 'Tobacco', by R. Wahl (pp. 310-47); 'Microscopic analysis of coffee, coffee additives and coffee substitutes' (pp. 348-93), 'Microscopic analysis of cacao' (pp. 394-413) and 'Microscopic analysis of tobacco' (pp. 414-

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Handbook of food chemistry. Vol. V. Part 2. Fruit, vegetables, potatoes, edible fungi.

25) by H. Melchior; 'Spices', by K. Staesche (pp. 426-610); 'Edible acids' (pp. 611-27), 'Essences and extracts of spice, spice substitutes and synthetic spices' (pp. 628-31) and 'Aromatic substances and essences' (pp. 632-39), by K. Herrmann; 'Cooking salt', by G. Keussink (pp. 640-65); 'Vinegar' (pp. 666-719) and 'Artificial sweeteners' (pp. 720-40), by K. Herrmann; and 'Pointers for food law evaluation', by K. G. Bergner (pp. 741-52). Each chapter has its own literature ref. An 18-pp. subject index is included. HBr

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[Handbook of food chemistry. Vol. VII. Alcoholic beverages.] Handbuch der Lebensmittelchemie, Band VII. Alkoholische Genussmittel. [A book] Schormüller, J.; Diemair, W. (Editors) xix + 742pp. (1968) [Numerous ref. De] Berlin, Heidelberg, New York: Springer-Verlag. Price DM 220 (Subscription Price DM 176)

The individual sections, each contributed by a leading authority on the subject, which make up this vol. are as follows: 'Alcoholic fermentation', by H. Specht & C.-C. Emeis (pp. 1-44, numerous ref.); 'Beer' by K. Schuster (pp. 45-171, numerous ref.); 'Wine: I. Viniculture and winemaking', by E. Vogt (pp. 172-310, numerous ref.); 'II. Analysis', by D. Hess & F. Koppe (pp. 311-495, numerous ref.); 'Brandies', by H. Suomalainen, O. Kauppila, L. Nykänen & R. J. Peltonen (pp. 496-653, numerous ref.); 'Analysis of brandies and spirits', by W. Horak, A. Frey & G. Günther (pp. 654-719, numerous ref.); and 'Pointers for food legislation evaluation', by K.-G. Bergner (pp. 720-28). A 14-pp. subject index is included HBr

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[Handbook of food chemistry. Vol. VIII. Part I. Water and air - water.] Handbuch der Lebensmittelchemie. Achter Band. Teil I. Wasser und Luft - Wasser. [A book] Schormüller, J. (Editor) xxx + 1-861 (1969) [Numerous ref. De] Berlin,

Heidelberg, New York: Springer-Verlag. Price DM 480 (inclusive for Parts I & II) (Subscription price DM 384 inclusive)

Part 1 of the 2 parts making up this work on 2 major ancillary aspects of food technology, viz. water and air, covers the subject under the following headings: 'Physical and chemical properties of water', by K. Haberer (pp. 1-52, 54 ref.); 'Hydrology', by K. Fricke (pp. 51-118, numerous ref.); 'Microbiology and biology of water', by G. Bringmann (pp. 119-162, 77 ref.) and D. Lüdemann (pp. 163-82, 40 ref.); 'Harnessing and utilization of water', by F. Nöring (pp. 183-216, 44 ref.) and H.-J. Bindzus (pp. 217-47, 19 ref.); 'Water technology', by E. Oehler (pp. 248-433, numerous ref.) and W. Müller (pp. 434-85, 81 ref.); 'Characteristics and treatment of waste waters', by W. Bucksteeg (pp. 486-557, 78 ref.); Analysis and evaluation of water. 1. Analysis of

drinking and industrial waters', by D. Eichelsdörfer, E. Fischer, U. Hässelbarth, H.-R. Hegi, K. Höll, F. Malz, E. Märki & K.-E. Quentin (pp. 558-770, numerous ref.); '2. Determination of radioactive substances in drinking and industrial waters', by K. Haberer (pp. 771-93, numerous ref.); and '3. Evaluation criteria and requirements for drinking and industrial waters', by W. H. Frank (pp. 794-861, numerous ref.). HBr

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[Handbook of food chemistry. Vol. VIII. Part 2. Water and air - water.] Handbuch der Lebensmittelchemie. Achter Band. Teil II. Wasser und Luft - Wasser. [A book] Schormüller, J. (Editor) xiii + 862-1241 (1969) [Numerous ref. De] Berlin, Heidelberg, New York: Springer-Verlag [Cont. from preceding abstr.] Part 2 contains the following chapters on water: 'Analysis and evaluation of water. 4. Analysis of mineral and spa waters', by W. Fresenius, K.-E. Quentin, R. E. Fresenius & G. Schretzenmayr (pp. 862-104, numerous ref.); '5. Evaluation criteria and requirements for mineral and spa waters', by K.-E. Quentin (pp. 1043-56, 33 ref.); '6. Methods of testing and evaluating domestic and industrial waste waters', by W. Husmann (pp. 1057-78, 5 ref.); 'Microbiological and biological analysis of water. 1. Drinking and industrial waters', by H. Reploh (pp. 1079-1146, numerous ref.); '2. Mineral and spa waters', by H. Dombrowski (pp. 1147-65, 91 ref.); '3. Methods for microbiological analysis of waste waters', by H. Reploh and A. Nehr Korn (pp. 1166-92, numerous ref.); '4. Oecological methods of biological analysis of water', by D. Lüdemann (pp. 1193-99, 24 ref.); '5. Physiological methods of biological analysis of water', by G. Bringmann (pp. 1200-28, 24 ref.); and 'Legal ordinances on water and water utilization', by C. Dornheim (pp. 1229-41, 11 ref.). [Cont. in following abstr.] HBr

141

[Handbook of food chemistry. Vol. VIII. Part II. Water and air - air.] Handbuch der Lebensmittelchemie. Achter Band. Teil II. Wasser und Luft - Luft. [A book] Schormüller, J. (Editor) 1242-1495 (1969) [Numerous ref. De] Berlin, Heidelberg, New York: Springer-Verlag

[Cont. from preceding abstr.] Part 2 contains the following chapters on air: 'Properties of air', by A. Heller & E. Lahmann (pp. 1242-1318); 'Air analysis and evaluation', by E. Lahmann (pp. 1319-1460, numerous ref.); and 'Laws and regulations on clean air', by A. Heller (pp. 1461-71, 24 ref.). Part 2 also contains a 24-pp. subject index to the 2-part vol. [See FSTA (1970) 2 3G140, 141 and 142 for previous vol.] HBr

142

[Handbook of food chemistry. Vol. IX. Objects of utility, packaging, and cleaning and disinfecting agents.] Handbuch der Lebensmittelchemie. Band IX. Bedarfsgegenstände, Verpackung Reinigungs- und Desinfektionsmittel.

Schormüller, I. (Editor)

xxv + 988pp. (1970) [Numerous ref. De] Berlin, Germany: Springer-Verlag Price DM 296 (Subscription price DM 236.80)

This vol., the latest in the comprehensive series on the chemistry of foods, contains the following chapters: Metal utilitarian objects, by G. Schikorr & H. Miethke (pp. 1-105); Utilitarian objects made from ceramics, glass, and enamel, by H. Häffner (pp. 106-55); Plastics and other polymers in the manufacture of utilitarian objects, by G. Triem (pp. 156-88); Utilitarian objects made from paper and pulpboard, by T. Ploetz (pp. 289-328); Lacquers, dyes, paints, other coatings and other colouring substances not of food nature, by K. Weinmann (pp. 329-433); Utilitarian objects of wood, by H. H. Dietrichs (pp. 434-87); Textile products, furs and leather, by J. Nüsslein & B. Rössler (pp. 488-530); Cosmetics, by H. Neugebauer (pp. 531-93); Aerosols, by H. Kübler (pp. 594-622); Waxes, paraffins, candles, by H.-J. Hofmann & G. von Rosenberg (pp. 629-90); Petroleum and the handling of flammable substances, by U. Rüdert (pp. 691-702); Cleaning and disinfecting agents in the food factory, by F. Reiff, H. Wissemeyer, H. Camphausen & F. Ruf (pp. 703-81); Pesticides, by G. Wildbrett & R. Weinberger-Kern (pp. 782-950); and Pointers for the evaluation of paints etc., plastics and other polymers from the food legislative standpoint, by K.-G. Bergner (pp. 951-57). Each chapter contains its own literature ref., and a 31 pp. subject index is appended. HBr

143

[Keeping quality and sorption properties of foods with low moisture contents.] Haltbarkeit und Sorptionsverhalten wasserarmer Lebensmittel. [A book]

Heiss, R.

163pp. (1968) [Numerous ref. De] Springer-Verlag Berlin, Heidelberg, New York [Inst. für Lebensmitteltechnologie und Verpackung, München, W. Germany]

This book is divided into 2 sections, the 1st, entitled 'Critical considerations' (pp. 1-59), covering basically the mechanics of sorption and its effect on foodstuffs in general. The 2nd section, entitled 'The sorption process and the relationship between keeping quality and moisture content of individual dry foodstuffs' (pp. 60-160), covers the following products: meat, fish, dried egg, dried milk (whole and skim), cheese, rice, rolled oats, flour, starch, farinaceous products, bakery and confectionery products, dried potato products, dried vegetables, dried tomato, dried fruit, oil-bearing seeds, pectin (and gelatine), sugar and caramel, dried yeast, coffee, coffee substitutes, tea, cocoa, chocolate, tobacco

products, baking powder, salt, monosodium glutamate, stock cubes and citric and tartaric acids. The book is well documented and contains a brief index. HBr

144

Odour description and odour classification. A multidisciplinary examination. [A book]

Harper, R.; Bate Smith, E. C.; Land, D. G. viii + 191pp. (1968) [Numerous ref. En] London: J. & A. Churchill Ltd. Price 38s. [Agric. Res. Council, Food Res. Inst., Earlham Lab., Norwich, England]

The subject is dealt with from the viewpoints of history, botany, perfumery, chemistry and behavioural sciences, under the headings: 'The current position', 'A historical review', 'Some special systems', 'The fundamental bases of classification', 'Quantitative approaches to classification', 'Variations in pleasantness and unpleasantness', and 'Evidence from anosmia and related clinical studies'. There are author and subject indexes. JN

145

[Sensory evaluation of foods.] Sensorische Beurteilung von Lebensmitteln. [A book]

Kiermeier, F.; Haevecker, U.

101pp. ISBN 3 8070 0284 7 (1972) [1135 ref. De] Munich, German Federal Republic: J. F. Bergmann, Price DM 18.00 [Milchwissenschaftliches Inst., Tech. Univ., Munich, German Federal Republic]

This soft-cover book is basically a revised and expanded version of 3 articles published earlier [see FSTA (1970) 2 4A159, (1971) 3 1A15 & 3A148]. It is divided into the following sections: General section (including a critique of the position in the German Federal Republic and proposals for an improved technique), specific characteristics of individual foods (divided into 9 categories), examples of sensory tests, aids for the tester, and the literature. A series of appendices give data on aspects of statistical evaluation, and a 2-pp. subject index is included. HBr

146

Odours. [A book]

Moncrieff, R. W.

vii + 237pp. SBN 433 22150 X (1970) [Numerous ref. En] London, UK: William Heinemann Medical Books Ltd. Price £2.25

This book, which should be of interest to research workers on odours, olfaction and flavours, includes the following chapters: Some properties of smell: how it behaves (pp. 1-9); The stimulus for smell (pp. 10-18); Our olfactory equipment (pp. 19-23, 2 ref.); The mechanism of olfaction (pp. 24-26); The psychology of odours

(pp. 27-36); Industrial odours (pp. 58-70, 8 ref.); Specific examples of industrial deodorization (pp. 71-84, 8 ref.); Odour control in air conditioning (pp. 105-118, 5 ref.); Aerosols (pp. 119-126, 3 ref.); Mercaptans (pp. 127-132); Chlorophyll (pp. 133-139, 9 ref.); Irritation (pp. 150-154, 3 ref.); Herbs (pp. 155-160, 4 ref.); Odorous flowers, leaves, roots, bark and fruits (pp. 161-175, 6 ref.); Determination of the kind of odour (pp. 176-188, 3 ref.); Determination of the strength of odours (pp. 189-195, 4 ref.); The flavour problem (pp. 196-215, 11 ref.). VJG

147

Symposium on foods: the chemistry and physiology of flavours. [A symposium] Schultz, H. W.; Day, E. A.; Libbey, L. M. (Editors)

x + 552pp. (1967) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co. Inc. Price \$3.00 (US) \$3.50 (Foreign) [Dept. of Food Sci. and Technology, St. Univ., Corvallis, Oregon, USA]

This book, which presents papers given at the 4th in a series of symposia on foods held at Oregon St. Univ. in Sept. 1965, is a comprehensive summary and source of reference material on the chemistry and physiology of flavour. Chapters are: 'Introduction to the symposium', by R. W. Moncrieff (pp. 3-22, 22 ref.); 'Structure of chemoreceptors', by A. I. Farbman (pp. 25-51, 49 ref.); 'Problems in the physiology of olfaction', by K. B. Döving (pp. 52-94, numerous ref.); 'Theories of olfaction', by A. Dravnieks (pp. 95-118, 79 ref.); 'Stereochemical theory of olfaction', by J. E. Amoore (pp. 119-47, 42 ref.); 'Statistical methods', by L. D. Calvin (pp. 151-60, 16 ref.); 'Analytical technique', by R. Teranishi, R. E. Lundin & J. R. Scherer (pp. 161-81, 70 ref.); 'Bread flavour', by J. R. Coffman (pp. 185-202, 47 ref.); 'Wine flavour: volatile aroma compounds of wine', by A. D. Webb (pp. 203-27, 72 ref.); 'Flavour of red meats', by I. Hornstein (pp. 228-50, 40 ref.); 'Poultry flavour', by E. L. Pippen (pp. 251-66, 42 ref.); 'Fish flavours', by N. R. Jones (pp. 267-95, numerous ref.); 'Milk flavour', by O. W. Parks (pp. 296-314, 77 ref.); 'Cultured dairy products', by R. C. Lindsay (pp. 315-30, 49 ref.); 'Cheese flavour', by E. A. Day (pp. 331-61, 84 ref.); 'Potato flavour', by R. Self (pp. 362-89, 89 ref.); 'Onion flavour', by J. F. Carson (pp. 390-405, 80 ref.); 'Hop flavour', by R. G. Buttery (pp. 406-18, 41 ref.); 'Peaches and pears', by W. G. Jennings (pp. 419-30, 28 ref.); 'Coffee flavour', by M. Gianturco (pp. 431-49, 30 ref.); 'Pineapple flavour', by R. M. Silverstein (pp. 450-61, 18 ref.); 'Nonenzymatic browning reactions', by J. E. Hodge (pp. 465-91, numerous ref.); 'Origin of flavours in lipids' by D. A. Forss (pp. 492-514, 88 ref.); and 'Flavour potentiators', by A. Kuninaka (pp. 515-35, 32 ref.). JA

148

Olfaction and taste. Proceedings of the third

international symposium. [A book]

Pfaffmann, C. (Editor)

xvi + 648pp. SBN 87470 0132 (1969) [Numerous ref. En] New York City, USA: Rockefeller Univ. Press. Price \$23.00.

Papers presented at the 3rd symposium on Olfaction and Taste held at the Rockefeller Univ. on 19-21 Aug. 1968 are arranged under 6 section headings: Olfactory receptor mechanisms (pp. 3-124); Olfactory psychophysics and sensory coding (pp. 127-231); Role of olfaction in behaviour (pp. 235-309); Taste receptor mechanisms (pp. 315-403); Taste psychophysics and sensory coding (pp. 407-532); Role of taste in behaviour (pp. 535-607). The following papers are included: Comparative morphology of olfactory receptors, R. A. Steinbrecht (pp. 3-21, 72 ref.); Notes on the fine structure of olfactory epithelium, by D. Frisch (pp. 22-33, 18 ref.); Electrical activity in olfactory receptor cells, by J. Boeckh (pp. 34-51, 49 ref.); Kinetics of olfactory receptor potentials, by K. E. Kaissling (pp. 52-70, 37 ref.); EOG problems, by S. F. Takagi (pp. 71-91, 62 ref.); The electropositive potential in the normal and degenerating olfactory epithelium, by S. F. Takagi, K. Aoki, M. Iino & T. Yajima (pp. 92-108, 36 ref.); Activities of single olfactory receptor cells, by T. Shibuya (pp. 109-116, 17 ref.); The interaction of the peripheral olfactory system with nonodorous stimuli, by T. V. Getchell (pp. 117-124, 7 ref.); Olfactory adaptation and the scaling of odour intensity, by W. S. Cain & T. Engen (pp. 127-141, 22 ref.); Intensity in mixtures of odorous substances, by E. P. Koster (pp. 142-149, 7 ref.); [Continued in following abstr.] VJG

149

Olfaction and taste. Proceedings of the third international symposium. [A book]

Pfaffmann, C. (Editor)

xvi + 648pp. SBN 87470 0132 (1969) [Numerous ref. En] New York City, USA: Rockefeller Univ. Press. Price \$23.00.

[Continued from preceding abstr.] A linear relationship between olfactory effectiveness and identified molecular characteristics, extended to 50 pure substances, by P. Laffort (pp. 150-157, 12 ref.); A plant to identify most of the primary odours, by J. E. Amoore (pp. 158-171, 57 ref.); Correlations between electrophysiological activity from the human olfactory bulb and the subjective response to odoriferous stimuli, by J. R. Hughes, D. E. Hendrix, N. Wetzel & J. W. Johnston, Jr. (pp. 172-191, 9 ref.); Reciprocal inhibition at glomerular level during bilateral olfactory stimulation, by J. Leveteau & P. MacLeod (pp. 212-215, 8 ref.); Effect of ethmoidal nerve stimulation on olfactory bulbar electrical activity, by H. Stone (pp. 216-220, 14 ref.); Evidence for the differential migration of odorant molecules across the olfactory mucosa, by M. M. Mozell (pp. 221-227, 4 ref.); The ultrastructure of vertebrate taste buds, by P. P. C. Graziadei (pp. 315-330, 48 ref.); Electrical signs of taste receptor

activity, by H. Morita (pp. 370-381, 14 ref.); Glucose dehydrogenase activity of a "sweet-sensitive protein" from bovine tongues, by S. Price & R. M. Hogan (pp. 397-403, 6 ref.); Effects of adaptation on human taste function, by D. H. McBurney (pp. 407-419, 13 ref.); Basis for taste quality in man, by E. Dzendolet (pp. 420-427, 23 ref.); [Continued in following abstr.] VJG

150

Olfaction and taste. Proceedings of the third international symposium. [A book]
Pfaffmann, C. (Editor)
xvi + 648pp. SBN 87470 0132 (1969) [Numerous ref. En] New York City, USA: Rockefeller Univ. Press. Price \$23.00.

[Continued from preceding abstr.] A comparative study on the neural and psychophysical response to taste stimuli, by H. Diamant & Y. Zotterman, (pp. 428-435, 16 ref.); Effects of *Gymnema sylvestre* and *Synsepalum dulcificum* on taste in man, by L. M. Bartoshuk, G. P. Dateo, D. J. Vandenberg, R. L. Buttrick, & L. Long, Jr. (pp. 436-444, 20 ref.); Miraculin, the sweetness-including principle from miracle fruit, by G. J. Henning, J. N. Brouwer, H. van der Wel & A. Francke (pp. 445-449, 11 ref.); Isolation and mechanism of taste modifiers; taste-modifying protein and gymnemic acids, by K. Kurihara, Y. Kurihara & L. M. Beidler (pp. 450-469, 22 ref.); Afferent specificity in taste, by M. Sato, S. Yamashita & H. Ogawa (pp. 470-487, 13 ref.); The distribution of taste sensitivities among single taste fibres, by M. Frank & C. Pfaffman (pp. 488-491); The role of adrenocortical hormone secretion in salt appetite, by D. A. Denton, J. F. Nelson, E. Orchard & S. Weller (pp. 535-547, 22 ref.); Innate mechanisms for regulation of sodium intake, by G. Wolf (pp. 548-553, 10 ref.); The metabolic regulation of taste acuity, by R. I. Henkin (pp. 574-585, 20 ref.); Digestive functions of taste stimuli, by M. R. Kare (pp. 586-592, 15 ref.); Antidiuresis associated with the ingestion of food substances, by J. W. Kakolewski & E. S. Valenstein (pp. 593-600, 7 ref.); [Continued in following abstr.] VJG

151

Olfaction and taste. Proceedings of the third international symposium. [A book]
Pfaffmann, C. (Editor)
xvi + 648pp. SBN 87470 0132 (1969) [Numerous ref. En] New York City, USA: Rockefeller Univ. Press. Price \$23.00.

[Continued from preceding abstr.] Depression of intake by saccharin adulteration: the role of taste quality on the control of food intake, by R. L. Gentile (pp. 601-607, 11 ref.). Abstracts submitted for discussion include: Psychophysiological measures of taste perception, by G. L. Fischer; Centrifugal modulation of gustatory responses, by B. P. Halpern & A. D. Brush; Olfactory perceptions of human novices, by J. W. Johnston, Jr.; Odour

preferences in men and rats, by J. T. Tapp. VJG

152

An introduction to the chemistry of carbohydrates. [A book]
Guthrie, R. D.; Honeyman, J.
vi + 144pp. (1968) [76 ref. En] Oxford: Clarendon Press. Price 45s. [Univ., Stanmer, Brighton, Sussex, England]

This revised 3rd edition provides an up-to-date account of the chemistry of a selected number of carbohydrates. Most chapters have been modified and that relating to physical methods has been lengthened. The material included provides a suitable course for students reading for an Honours degree in Chemistry. The following chapters are included: 'The constitution and configuration of the monosaccharides' (pp. 3-14); 'Synthesis of monosaccharides' (pp. 15-22); 'The ring structure of monosaccharides' (pp. 23-33); 'Conformations of monosaccharides' (pp. 34-39); 'Action of acids and alkalis on monosaccharides' (pp. 40-43); 'Ethers and acetals' (pp. 44-51); 'Esters and anhydro sugars' (pp. 52-67); 'Glycol-splitting reagents' (pp. 68-72); 'Nitrogen-containing monosaccharide derivatives' (pp. 73-80); 'Miscellaneous monosaccharide derivatives and polyols' (pp. 81-90); 'Ascorbic acid' (pp. 91-97); 'Di-, tri-, and tetra-saccharides' (pp. 98-106); 'Polysaccharides' (pp. 107-130); 'Physical methods' (pp. 131-36). VJG

153

Symposium on foods: carbohydrates and their roles. [A book]
Schultz, H. W.; Cain, R. F.; Wrolstad, R. W. (Editors)

x + 458pp. (1969) [Numerous ref. En] Westport, Connecticut: The AVI Publishing Co. Inc. Price US \$ 3.00 Foreign \$ 4.00. [St. Univ., Corvallis, Oregon, USA]

This book contains the papers presented at the 5th Biennial 'Symposium on foods: carbohydrates and their roles' held in the Department of Food Science and Technology at Oregon State University, July 23-25, 1968. The papers, arranged as chapters under 6 section headings, include: 'Introduction to the symposium', by S. M. Cantor (pp. 1-11); 'Mono- and oligosaccharides', by M. L. Wolfrom (pp. 12-25, 38 ref.); 'Physical and chemical structure of starch and glycogen', by D. French (pp. 26-54, 52 ref.); 'Cellulose', by K. Ward, Jr. (pp. 55-72, 59 ref.); 'Pectins and gums', by R. L. Whistler (pp. 73-99); 'Glycolipids', by R. A. Pieringer (pp. 100-14, 80 ref.); 'Aspects of the structure of glycoproteins', by A. Neuberger & R. D. Marshall (pp. 115-32, 46 ref.); 'The chemical analysis of carbohydrates', by R. Montgomery (pp. 133-46, 38 ref.); 'Physical methods', by D. R. Limbeck (pp. 147-77, 78 ref.); 'Biochemical methods of carbohydrate analysis', by J. N. BeMiller (pp. 178-204, 140 ref.); 'Carbohydrate

oxidations', by A. S. Perlin (pp. 205-18, 63 ref.); 'Nonenzymic browning sugar-amine interactions', by T. M. Reynolds (pp. 219-52, 64 ref.); 'Glycosidic pigments and their reactions', by R. M. Horowitz & B. Gentili (pp. 253-68, 16 ref.); 'Irradiation - effects on polysaccharides', by L. M. Massey, Jr. & M. Faust (pp. 269-97, 133 ref.); 'Carbohydrates in human nutrition', by A. E. Harper (pp. 298-321, 34 ref.); 'The metabolic importance of carbohydrate in obesity', by E. S. Gordon (pp. 322-46, 21 ref.); 'Cardiac glycosides', by W. W. Zorbach (pp. 347-58, 24 ref.); 'Diabetes mellitus: Hormonal regulation of hepatic carbohydrate metabolism', by G. E. Mortimore (pp. 359-72, 24 ref.); 'Sugars', by G. N. Bollenback (pp. 373-94, 91 ref.); 'Starches in foods', by T. J. Schoch (pp. 395-420, 29 ref.); 'Carbohydrate hydrophilic colloid systems', by W. A. Mitchell (pp. 421-43, 35 ref.); 'Summary and panel discussion', (pp. 444-50). VJG

154

The carbohydrates. Chemistry and biochemistry. [A book]

Pigman, W.; Horton, D. (Editors)
2nd edition Vol. IIA. xviii + 469 + 52pp SBN 12 556302 7 (1970) [Numerous ref. En] London, UK: Academic Press, Inc. (London) Ltd. [Dept. of Biochem., Med. Coll., New York, New York, USA]

This volume of the revision of the 1957 edition contains comprehensive reviews of the subject under the headings: Nucleosides, by C. A. Dekker & L. Goodman (pp. 1-68); Oligosaccharides by J. H. Pazur (pp. 69-138); Antibiotics containing sugars, by S. Hanessian & T. H. Haskell (pp. 139-212); Complex glycosides, by J. E. Courtois & F. Percheron (pp. 213-41); Glycoside hydrolases and glycosyl transferases, by K. Nisizawa & Y. Hashimoto (pp. 242-301); Biosynthesis of sugars and polysaccharides, by W. Z. Hassid (pp. 302-74) Introduction to polysaccharide chemistry, by I. Danishefsky, R. L. Whistler & F. A. Bettelheim (pp. 375-412); Cellulose, lichenan and chitin, by K. Ward, Jr. & P. A. Seib; and Hemicelluloses, by R. L. Whistler & E. L. Richards (pp. 447-69). An author and subject index are provided. (See also following abstr.) JN

155

The carbohydrates. Chemistry and biochemistry. [A book]

Pigman, W.; Horton, D. (Editors)
2nd edition. Vol. IIB. xvi + 471-853 + 49pp. ISBN 0 12 556352 3 (1970) [Numerous ref. En]

(See also preceding abstr.) This volume contains the following chapters: Starch and glycogen, by C. T. Greenwood (pp. 471-514); Pectins, plant gums, and other plant polysaccharides, by G. O. Aspinall (pp. 515-36); Algal polysaccharides, by E. Percival (pp. 537-68); Bacterial and fungal polysaccharides, by S. A. Barker & P. J. Somers (pp. 569-89); Mucopolysaccharides of higher animals, by R. W. Jeanloz (pp. 590-627);

Glycoproteins, by R. Montgomery (pp. 628-710); Glycolipids, by J. M. McKibbin (pp. 711-39);

Analytical methods for carbohydrates, by D. Aminoff, W. W. Binkley, R. Schaffer & R. W. Mowry (pp. 740-808); Rules of carbohydrate nomenclature (pp. 809-35); and Nomenclature and list of enzymes acting on carbohydrates, by A. Herp, D. Horton & W. Pigman (pp. 836-53). An author and subject index are provided. JN

156

[Tensides from fatty materials.] Tenzidy z tukovych surovin. [A book]

Ranny, M.
235pp. (1969) [Cs] Prague: CAZ-VUPP-STI. Price 51.60 Kcs

The publication summarizes theoretical and practical findings concerning the chemistry, properties and use of tensides, the molecules of which contain carboxyl groups (free or modified). Tensides are surface-active compounds, produced mainly from fatty materials. The most important part of the book is the explanation of the chemistry and properties of new and technically important types, such as sulphonized fatty acids, alkanolamides of fatty acids and surface-active derivatives of sucrose. The book is intended for research workers engaged in the chemical, food and consumer goods industries. STI

157

Structural and functional aspects of lipoproteins in living systems. [A book]

Tria, E.; Scanu, A. M. (Editors)
xxiii + 661pp. (1969) [Numerous ref. En] London, UK: Academic Press Inc. (London) Ltd. [Istituto de Fisiologia Generale, Univ., Rome, Italy]

This book is divided into 3 sections as follows: A, a general introduction, which contains information on the physico-chemical properties of lipoproteins and a study of their interaction; B, structural lipoproteins; and C, soluble lipoproteins. Section C includes chapters on Milk lipoproteins, by J. R. Bunner (pp. 545-78, numerous ref., which contains information on the isolation and fractionation of the fat globule membrane, characteristics of the membrane lipoprotein complex, organization of the membrane complex and comparison of the fat globule membrane with other membranes), and Egg lipoproteins, by W. H. Cook & W. G. Martin (pp. 579-615, numerous ref., which contains information on low and high density lipoprotein in avian egg yolks). SPT

158

The vitamins: chemistry, physiology, pathology, methods. [A book]

Sebrell, W. H., Jr.; Harris, R. S. (Editors)
Vol. I. 2nd edition xiii + 570pp. (1967) [Numerous ref. En] New York & London: Academic Press

This volume, the first of the 7 projected volumes of a completely rewritten 2nd edition of a comprehensive treatise, covers vitamin A, carotene and ascorbic acid. JMD

159

Biotin - an annotated bibliography. [A book]

Billings, F. L. (Roche Products Ltd.)

241pp. (1970) [En] Montreal, Canada: Hoffman La Roche Ltd.

This bibliography is divided into sections which cover the different roles of biotin, in addition to its assay methods, properties and biosynthesis. Sections relate to the biotin content of natural products and its requirement in the food of humans, domestic animals, poultry, ruminants and fish. Biotin is also covered in relation to reproduction, protein metabolism and microorganisms. DMK

160

The vitamins: chemistry, physiology, pathology, methods. [A book]

Sebrell, W. H., Jr.; Harris, R. S. (Editors)

Vol. II. 2nd edition xv + 422pp. (1968) [Numerous ref. En] New York & London: Academic Press

This second volume on vitamins includes chapters on vitamin B₆, vitamin B₁₂ and biotin. In each chapter the vitamin is discussed under the headings of nomenclature and formula; chemistry; industrial preparation and production; estimation in foods and food supplements; occurrence in foods; standardization of activity; biogenesis; active compounds and antagonists; biochemical systems; biochemical detection of deficiency; deficiency effects in animals and man; pharmacology and toxicology; and vitamin requirements in man, animals and microbes.

ANALYSIS

161

[Handbook of food chemistry. Vol. II. Part 1. Analysis of foods. Physical and physico-chemical methods.] Handbuch der Lebensmittelchemie. Zweiter Band/Teil. 1. Analytik der Lebensmittel.

Physikalische und physikalisch-chemische Untersuchungsmethoden. [A book]

Schormüller, J. (Editor)

xxiii + 944 pp. (1965) [Numerous ref. De] Berlin, Heidelberg, New York: Springer-Verlag Price DM 236 (Subscription Price DM 188.80)

Analytical methods are covered under the following chapter headings in this comprehensive and well illustrated book: 'Sampling', by H. Werner (pp. 1-13); 'Density' (pp. 14-40), 'Viscosity' (pp. 41-60) and 'The Ultracentrifuge' (pp. 61-84) by A. Mahling; 'Ultrafiltration, dialysis and electrodialysis' (pp. 85-111) and 'Phase surface phenomena, surface tension and adsorption phenomena' (pp. 112-44), by H.

Wollenberg; 'Mp or solidification point (fp) and bp or condensation point', by H. J. Henning (pp. 145-200); 'Calorimetry', by K. Volz (pp. 200-05); 'pH measurement', by D. Berndt (pp. 206-40); 'Redox potential', by W. Heimann & K. Wisser (pp. 241-80); 'Conductometry and dielectrometry', by K. E. Slevogt (pp. 281-317); 'Emission spectral analysis', by K. Pfeilsticker (pp. 318-60); 'Flame photometry', by W. Diemair & K. Pfeilsticker (pp. 361-76); 'Measurement of light absorption', by J. Eisenbrand (pp. 377-453); and 'Optical polarimetry' by J. Flügge (pp. 454-84). EJM

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[Handbook of food chemistry. Vol. II. Part 1. Analysis of foods. Physical and physico-chemical methods.] Handbuch der Lebensmittelchemie.

Zweiter Band/Teil. 1. Analytik der Lebensmittel. Physikalische und physikalisch-chemische Untersuchungsmethoden. [A book]

Schormüller, J. (Editor)

xxiii + 944pp. (1965) [Numerous ref. De] Berlin, Heidelberg, New York: Springer-Verlag Price DM 236 (Subscription Price DM 188.80)

[See preceding abstr.] 'Interferometry', by J. Eisenbrand (pp. 485-90); 'Polarography', by W. Diemair & K. Pfeilsticker (pp. 491-518); 'Chromatographic methods. A. Paper chromatography', by A. Grüne (pp. 519-66); 'Chromatographic methods. B. Column chromatography', by G. Wohlleben (pp. 567-96); 'Chromatographic methods. C. Thin-layer chromatography', by A. Seher (pp. 597-621); 'Chromatographic methods. D. Gas chromatography', by F. Drawert (pp. 622-91); 'Electrophoreses', by H. D. Belitz (pp. 692-712); 'Multiplicative separation techniques', by E. Hecker (pp. 713-44); 'Detection of radionuclides in foods', by K. G. Bergner & P. Jägerhuber (pp. 745-73); 'Microscopy', by H. Freund (pp. 774-815); 'Microscopic preparation', by F. Walter (pp. 816-53); 'Graduation of measuring vessels', by H. Johannsen (pp. 854-73); 'Refractometry', by R. Ramb (pp. 876-908); and 'Nephelometry', by K. Feiling (pp. 909-15). EJM

163

[Handbook of food chemistry. Vol. II. Part 2.

Analysis of foods. Determination of food constituents.] Handbuch der Lebensmittelchemie.

Zweiter Band/Teil 2. Analytik der Lebensmittel. Nachweis und Bestimmung von Lebensmittel-Inhaltsstoffen. [A book]

Schormüller, J. (Editor)

xxvi + 1552 pp. (1967) [Numerous ref. De] Berlin, Heidelberg, New York: Springer-Verlag Price DM 389 (Subscription Price DM 311.20)

This comprehensive and well-referenced volume includes the following chapters: 'Water analysis', by W. Schäfer (pp. 1-45); 'Minerals: preparation of samples, determination of total ash, detection and determination of individual minerals', by E. Schneider (pp. 46-81); 'Minerals:

detection and determination of trace elements', by W. Diemair & K. Pfeilsticker (pp. 82-124); 'Element analysis', by W. Diemair & W. Rödder (pp. 125-35); 'Nitrogen compounds: proteins, amino acids and amines', by G. Pfeleiderer (pp. 136-66); 'Nitrogen compounds: ammonia, nitrous acid and nitric acid', by T. Niedermaier (pp. 167-97); 'Serological methods for the examination of protein', by L. Kotter (pp. 198-231); 'Enzymes: detection and characterization of enzyme activity', by H. Sommer (pp. 232-320); 'Carbohydrates: water-soluble coestimation of mono- and oligosaccharides' (pp. 338-436), by L. Acker; and 'Detection and estimation of polysaccharides', by H. Thaler (pp. 437-65). EJM

164

[Handbook of food chemistry. Vol. II. Part 2. Analysis of foods. Determination of food constituents.] *Handbuch der Lebensmittelchemie. Zweiter Band/Teil 2. Analytik der Lebensmittel. Nachweis und Bestimmung von Lebensmittel-Inhaltsstoffen.* [A book] Schormüller, J. (Editor) xxxi + 1552 pp. (1967) [Numerous ref. De] Berlin, Heidelberg, New York: Springer-Verlag Price dmDM 389 (Subscription Price DM 311.20)

See preceding abstr. 'Pectins', by H. Gudjons (pp. 466-98); 'Determination of cellulose and other cell wall constituents', by H. Thaler (pp. 499-516); 'Alcohols', by E. Kröller (pp. 517-97); 'Aldehydes and ketones', by P. Joppien (pp. 598-668); 'Vitamins, provitamins and carotenoids', by J. P. Vuilleumier et al. (pp. 669-876); 'Additives and contaminants - preservatives', by W. Diemair & W. Postel (pp. 877-951); 'Additives and contaminants - antioxidants', by A. Seher (pp. 952-76); 'Additives and contaminants - pesticide residues in foods', by R. Franck & G. Bressau (pp. 977-1050); 'Further additives and contaminants', by H. Mühlischlegel (pp. 1051-142); 'Functional group analysis', by K. M. Bürger (pp. 1143-93); 'Statistical evaluation of analytical data', by K. Doerffel (pp. 1194-246); 'Additives and contaminants - dyes', by H. Woidich (pp. 1247-355); and 'Organic acids', by L. Schmid et al. (pp. 1356-460). EJM

165

Methods in food analysis. Physical, chemical and instrumental methods of analysis. [A book] Joslyn, M. A. (Editor) 2nd edition, xix+845pp. (1970) [Numerous ref. En] New York, USA: Academic Press Inc. Price \$35.00 [Coll. of Agric. Sci., Dept of Nut. Sci., Univ., Berkeley, California, USA]

This book, a volume in the Food Science and Technology Series of Monographs, will serve as a reference source and laboratory manual for those with some previous knowledge of qualitative and

quantitative analysis and organic and inorganic chemistry. Emphasis is placed on the scientific basis of particular methods of food analysis. Procedures discussed have been selected to illustrate the more important methods of analysis and not the methods of examining a particular food product. This 2nd edition has been considerably revised and augmented and contains several new chapters, but also includes classical techniques. Chapters (author M. A. Joslyn unless otherwise stated) are: Introduction (pp. 1-21, numerous ref.); Statistical methods, sampling and errors in analysis (pp. 23-48, 82 ref.); Preparation of samples for analysis, storage and preservation of samples, expression of results (pp. 49-66, 45 ref.); Moisture content and total solids (pp. 67-108, numerous ref.); Ash content and ashing procedures (pp. 109-40, 78 ref.); Extraction methods and separation processes (pp. 141-200, numerous ref.); Densimetric methods (pp. 201-37, 59 ref.); Refractometric methods (pp. 239-66, 45 ref.); Polarimetry and saccharimetry (pp. 267-82, 25 ref.); Colorimetry and spectrophotometry (pp. 283-317, numerous ref.); Potentiometric and related methods (pp. 319-46, 65 ref.); pH and buffer capacity (pp. 347-74, 65 ref.); Viscosity, consistency, and texture. Conductivity measurements and gas analysis (pp. 375-400, numerous ref.); Acidimetry (pp. 401-46, numerous ref.); Alcoholometry (pp. 447-74, numerous ref.); Monosaccharides, by R. M. McCready (pp. 475-509, numerous ref.). [Continued in following abstr.] JA

166

Methods in food analysis. Physical, chemical and instrumental methods of analysis. [A book] Joslyn, M. A. (Editor) 2nd edition, xix + 845pp. (1970) [Numerous ref. En] New York, USA: Academic Press Inc. Price \$35.00 [Continued from preceding abstr.] Oligosaccharides, by R. M. McCready (pp. 511-39, 92 ref.); Starch and dextrin, by R. M. McCready (pp. 541-63, 86 ref.); Pectin, by R. M. McCready (pp. 565-99, numerous ref.); The determination of total organic nitrogen, by H. A. Lillevik (pp. 601-16, 37 ref.); The analytical chemistry of the proteins, peptides, and amino acids, by H. A. Lillevik (pp. 617-700, numerous ref.); Tannins and related phenolics, by S. H. Schanderl (pp. 701-25, numerous ref.); Enzyme assay (pp. 727-43, numerous ref.); Vitamin assay, by S. H. Schanderl (pp. 745-91, 65 ref.); Chemical preservatives and artificial sweeteners, by P. Markakis (pp. 793-806, 47 ref.); and Chemical indices of incipient decomposition and identity (pp. 807-28, numerous ref.). JA

167

The chemical analysis of foods. Pearson, D.

6th edition xii + 604pp. ISBN 0 7000 1457 8 (1970) [Numerous ref. En] London, UK: J. & A. Churchill

Price £6.00 [Nat. Coll. of Food Tech., Univ. of Reading, Weybridge, Surrey, UK]

This revised 6th Edition gives details of methods of chemical analysis of foods under the headings: General methods; General methods for additives and contaminants; Sugar and preserves; Cereals and starch products; Baking powders; Eggs; Salad cream; Fruit and vegetable products; Beverages; Herbs and spices; Fermentation products; Flesh food; Table jellies; Dairy products; Oils and fats; Miscellaneous; Food legislation. Appendices cover: Preservatives in food regulations, 1962; Further classes of food additives; Flavouring agents; Claims regarding vitamin and mineral contents; Energy calculations; Cyclamates in soft drinks; Filters for spectrophotometry; Spectrophotometric data; Factors for volumetric analysis; SI system of units. A detailed subject index is included. JN

168

Modern food analysis. [A book]

Hart, F. L.; Fisher, H. J.

xi + 519pp. ISBN 0 387 05126 0 (Springer-Verlag New York. Heidelberg. Berlin), ISBN 3 540 05126 0 (Springer-Verlag Berlin. Heidelberg. New York) (1971) [Numerous ref. En] New York, USA: Springer-Verlag New York Inc. Price \$32.00

This book contains data on the composition of raw and processed foods, their standards of identification and quality, specifications, and current methods for their analysis, including standard methods for major components and test to detect adulteration. The book is aimed primarily at food chemists, quality control personnel, regulatory officials and postgraduate students of chemistry and food technology. Included are reproductions from current official methods of the AOAC, American Association of Cereal Chemists, and the American Oil Chemists' Society, and US and Canadian legal standards for foods. Chapters are: Introduction - general methods for proximate and mineral analysis (pp. 1-27, 82 ref.); Alcoholic beverages (pp. 28-51, 34 ref.); Non-alcoholic beverages and concentrates (pp. 52-60, 24 ref.); Cereal foods (pp. 61-90, 57 ref.); Cocoa, coffee, tea and Yerba mate (pp. 91-107, 67 ref.); Dairy products (including ice cream, ice milk and sherbets) (pp. 108-148, 89 ref.); Dessert mixes (non-dairy) and gelatin (pp. 149-152, 5 ref.); Eggs and egg products (pp. 153-163, 25 ref.); Extracts and flavours (pp. 164-175, 39 ref.); Flesh foods (pp. 176-219, 53 ref.); [continued in following abstr.]. JA

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Modern food analysis. [A book]

Hart, F. L.; Fisher, H. J.

xi + 519pp. ISBN 0 387 05126 0 (Springer-Verlag New York. Heidelberg. Berlin), ISBN 3 540 05126 0 (Springer-Verlag Berlin. Heidelberg. New York) (1971) [En] New York, USA: Springer-Verlag New York Inc. Price \$32.00
[Continued from preceding abstr.] Fruits and

fruit products (pp. 220-270, 88 ref.); Nuts and nut products (pp. 271-283, 29 ref.); Oils and fats (pp. 284-307, 55 ref.); Preservatives and artificial sweeteners (pp. 308-328, 58 ref.); Spices and condiments (pp. 329-364, 79 ref.); Sugars and sugar products (pp. 365-415, 94 ref.); Vegetables and vegetable products (pp. 416-438, 58 ref.); Colours (pp. 439-453, 31 ref.); Pesticidal residues (pp. 454-456, 32 ref.); Vitamins (pp. 457-458, 8 ref.); Special instrumental methods (pp. 459-480, numerous ref.); and Standards and specifications (pp. 481-485, 18 ref.). An appendix (pp. 486-512) consists of 10 useful tables e.g. atomic weights, refractive indices of sucrose solutions at 20°C, table for determining TS in milk from any given sp. gr. and % of fat. A subject index is included. JA

170

Food analysis: theory and practice. [A book]

Pomeranz, Y.; Meloan, C. E.

viii + 669pp. ISBN 0 87055 100 0 (1971) [Numerous ref. En] Westport, Connecticut USA: AVI Publishing Co. Inc. Price \$24.00 (USA) \$25.00 (Foreign) [Dept. of Agronomy, Univ., Madison, Wisconsin, USA]

This book is designed for use by students of food science and technology and as a survey of modern analytical techniques and instruments for personnel in the field of food analysis. The main purpose of the book is to explain the background and principles of analytical methods, rather than to give details of the methods. Both modern and classical procedures are dealt with. Included are diagrams and descriptions of instruments, information on their application and precision, and sample problems with detailed solutions. Where applicable, comparisons are drawn between instrumental and assay procedures. The book is divided into 3 sections: General (pp. 1-38), Methods and instrumentation (pp. 39-474), and Applications and chemical composition (pp. 475-658), each containing several chapters. Chapter headings are: Searching the literature (pp. 1-10, 38 ref.); Sampling (pp. 11-20, 14 ref.); Preparation of samples (pp. 21-29, 13 ref.); Reporting results and reliability of analyses (pp. 30-38, 3 ref.); Theory of spectroscopy (pp. 39-50); The visible and ultraviolet regions (pp. 51-71, 7 ref.); Colour of foods (pp. 72-83, 28 ref.); Fluorescence and phosphorescence (pp. 84-93, 6 ref.); Infrared spectroscopy (pp. 94-115, 6 ref.); Flame photometry and atomic absorption (pp. 116-129, 3 ref.); X rays (pp. 130-142, 6 ref.); Potentiometry (pp. 143-161, 7 ref.); Coulometry (pp. 162-174, 8 ref.); Conductivity (pp. 175-180, 1 ref.); Electrophoresis (pp. 181-200, 28 ref.); Voltammetry (polarography) (pp. 201-212, 7 ref.); [continued in following abstr.]. JA

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Food analysis: theory and practice. [A book]

Pomeranz, Y.; Meloan, C. E.

viii + 669pp. ISBN 0 87055 100 0 (1971) [Numerous ref. En]

[Continued from preceding abstr.] Mass spectroscopy (pp. 213-228, 4 ref.); Nuclear magnetic resonance (pp. 229-237, 14 ref.); Radioactivity and counting techniques (pp. 238-252, 9 ref.); Column chromatography (pp. 253-280, 12 ref.); Paper and thin-layer chromatography (pp. 281-294, 5 ref.); Gas-liquid chromatography (pp. 295-313, 4 ref.); Extraction (pp. 314-323, 11 ref.); Centrifugation (pp. 324-332, 14 ref.); Densimetry (pp. 333-342, 5 ref.); Refractometry (pp. 343-351); Polarimetry (pp. 352-361, 4 ref.); Rheology, (pp. 362-407, numerous ref.); Serology, immunochemistry and immunoelectrophoresis (pp. 408-420, 45 ref.); Enzymatic methods (pp. 421-447, numerous ref.); Analytical microbiology (pp. 448-474, 92 ref.); General remarks (pp. 475-480); Determination of moisture (pp. 481-510, 70 ref.); Ash and mineral components (pp. 511-533, 81 ref.); Carbohydrates (pp. 534-577, numerous ref.); Lipids (pp. 578-627, numerous ref.); Nitrogenous compounds (pp. 628-651, numerous ref.); and Objective vs. sensory evaluation of foods (pp. 652-658, 11 ref.). A subject index is included. JA

172

[Laboratory practice in general processing of foodstuffs.] Laboratornyi praktikum po obshchei tekhnologii pishchevykh veshchestv. [A book] Ostrovskii, A. I. 191 pp. (1968) [31 ref. Ru] Moscow: Pishchevaya promyshlennost. Price 62 k.

This book describes the methods of analysis of food products. A brief introduction describing the characteristics of the analysed substances, the average chemical composition, physiological value and a technological evaluation, is given. The general part includes: the determination of moisture content of foods, content of minerals, N, raw fat, oil, and carbohydrates; and the polarimetric determination of the concn. of sugar in the solution. The special part includes sections dealing with: analysis of grain, flour, yeast, rye malt and milk. The analysis and evaluation of edible fats: The determination of the content of salts in margarine and butter: An analysis of starch and starch syrup, baked bread, pastry, caramel, jam and wine are also covered. STI

173

Laboratory handbook of methods of food analysis. [A book]

Lees, R. xii+181pp. (1968) [Numerous ref. En] London: Leonard Hill Books. Price 63s.

This practical work book for a factory lab. bench worker contains in Section III (pp. 79-181) >100 techniques for the analysis of foods. Section II (pp. 43-78) is a detailed index to the methods applicable to >100 named foods. Section I consists of introductory material under the headings: "Sampling" (pp. 3-7), "Laboratory techniques" (pp. 8-16), "Chromatography" (pp. 17-21), "Optical analytical techniques" (pp. 22-28), "Taste panel testing" (pp. 29-33) and "Useful information for the food analyst" (pp. 34-39). JN

174

Laboratory handbook of methods of food analysis. [A book]

Lees, R. 2nd edition xii+192pp. ISBN 0 249 44090 7 (1971) [Numerous ref. En] London, UK: Leonard Hill Books. Price £3.80

This 2nd edition has been revised and its value enhanced by the inclusion of a subject index, but it remains a practical work book designed with the needs of the laboratory worker in mind. All techniques included have been chosen for their suitability for use in the factory laboratory. All methods given in the 1st edition have been reviewed and revised where appropriate; a number of additional methods have been included. The book is divided into 3 sections: Notes on general laboratory methods used in food analysis (pp. 1-39), which covers sampling, laboratory techniques, chromatography, optical analytical techniques, taste panel testing, and useful information for the food analyst (e.g. atomic weights); Index to methods of analysis for named foodstuffs (pp. 41-76) (foodstuffs are listed alphabetically); and Methods of analysis (pp. 77-186). [See *FSTA* (1969) 1 5A115 for 1st edition.] JA

175

[Swiss food handbook. Methods for examination and evaluation of foodstuffs and articles of utility. 2nd Vol.-Special part. 1st Issue (1968).]

Schweizerisches Lebensmittelbuch. Methoden für die Untersuchung und Beurteilung von Lebensmitteln und Gebrauchsgegenständen. Zweiter Band - Spezieller Teil. 1. Lieferung (1968).

Schweizerische Lebensmittelbuchkommission; Eidgenössisches Gesundheitsamt 5th edition x+190pp.+22pp. (1967) [De] Berne, Switzerland: Eidg. Drucksachen- und Materialzentrale

The 1st issue of this official handbook consists of an introduction and table of contents and 4 sections (with indexes) of the 56 sections that will constitute the complete publication. It contains definitions, guide lines for evaluation and analysis, instructions for preparation of material for analysis and analytical methods for: Farinaceous products (section 20); Dietetic foods (section 22A-F); Honey and artificial honey (section 23); Wine (section 30, with alcohol content tables as supplement). SKK

176

[Swiss food handbook. Methods for examination and evaluation of foodstuffs and articles of utility. 2nd Vol.-Part 1. 2nd issue (1969).]

Schweizerisches Lebensmittelbuch. Methoden für die Untersuchung und Beurteilung von Lebensmitteln und Gebrauchsgegenständen. Zweiter Band - Teil 1. 2. Lieferung (1969).

Switzerland, Schweizerische Lebensmittelbuchkommission; Eidgenössisches Gesundheitsamt 5th edition xiii+212pp. (1969) [De] Berne,

Switzerland: Eidg. Drucksachen- und Materialzentrale

The 2nd issue of this official handbook consists of an introduction and table of contents and 4 sections with indexes of the 56 sections that will constitute the complete publication. It contains definitions, guide lines for evaluation and analysis, instructions for preparation of material for analysis and analytical methods for: Milk (section 1); Edible fats and oils and margarine (section 7); Cacao and chocolate (section 36); Microbiology and hygiene (section 56). [See FSTA (1969) 1 4A102 for 1st issue.] SKK

177

[Swiss food handbook. Methods for examination and evaluation of foodstuffs and articles of utility. 2nd Vol.-Part 1. 3rd issue (1969).]

Schweizerisches Lebensmittelbuch. Methoden für die Untersuchung und Beurteilung von Lebensmitteln und Gebrauchsgegenständen. Zweiter Band-Teil 1. 3. Lieferung (1969). [A book]

Schweizerische Lebensmittelbuchkommission; Eidgenössisches Gesundheitsamt
5th edition 32pp. (1969) [De] Berne, Switzerland: Eidgenössische Drucksachen- und Materialzentrale

This 32-pp. issue, entitled 'Chapter 21 -- eggs and egg preserves', concludes Part I of the 2nd vol. This issue covers the morphology and chemical composition of hens' eggs, gives hints for evaluating and analysing eggs, and describes the main testing methods used in Switzerland. [See FSTA (1969) 1 4A102 & (1970) 2 2A60 for earlier issues.] HBR

178

[Swiss food handbook. Methods for examination and evaluation of food stuffs and articles of utility.

2nd Vol.-Part 1. 4th issue (1970).] Schweizerisches Lebensmittelbuch. Methoden für die Untersuchung und Beurteilung von Lebensmitteln und Gebrauchsgegenständen. Zweiter Band-Teil 1. 4. Lieferung (1970). Switzerland, Schweizerische Lebensmittelbuchkommission; Switzerland, Eidgenössisches Gesundheitsamt
5th edition v + 204pp. (1970) [De] Berne, Switzerland: Drucksachen- und Materialzentrale

The 4th issue of this official handbook contains definitions, guide lines for evaluation and analysis, instruction for preparation of material for analysis and analytical methods for: Cream and ice cream; Cheese; Mushrooms (fresh and preserved); Fruit and vegetable juices, concentrates, powder and syrups; jams, marmalade and jellies; spreads and similar products; and Spices and cooking salt. Each section contains its own subject index. [See FSTA (1970) 2 5A183 for 3rd issue.] HBR

179

Comprehensive analytical chemistry. Vol. 2C.

Electrical methods, physical separation methods. [Book]

Wilson, C. L.; Wilson, D. W. (Copius Peereboom, J. W.; Gibbons, D.; Lambie, D. A.; Flockhart, B. D.; Macdonald, G. L.) ((Editors))
xvi + 420pp. ISBN 0 444 40678 6 (1971) [many ref. En] Amsterdam, Netherlands, Elsevier Publishing Co. Price f95.00. [Dept. of Analytical Chem., Queen's Univ., Belfast, UK]

This comprehensive reference work contains the following chapters: Paper chromatography and thin-layer chromatography, by J. W. Copius Peereboom (pp. 1-129, 466 ref.); radiochemical methods of analysis, by D. Gibbons & D. A. Lambie (pp. 130-205, 247 ref.); Nuclear magnetic resonance and electron spin resonance methods, by B. D. Flockhart (pp. 206-317, 170 ref.); X-ray spectrometry, by G. L. Macdonald (pp. 318-399, 199 ref.). A detailed 20-pp subject index is appended. JN

180

Calculations used in food analysis. [A book]

Coleman, C. H.
29pp. (1968) [3 ref. En] Chicago, Illinois: Defense Subsistence Testing Lab. [1819 West Pershing Road, Chicago, Illinois 60609, USA]

The more common calculations used in the analysis of food in one government laboratory are given with examples. Equations are set up so that data can be fed into them. The example serve as checks for calculations and whether meaningful values have been obtained. Factors and significant figures extend the usefulness of the calculations. AS

181

[New physico-chemical methods of analysis of canned food products.] Noveye fiziko-khimicheskie metody issledovaniya konservirovannykh pishchevykh produktov. [A book]

Soloveva, E. I.
52pp. (1968) [Ru] Moscow: CINTe-Pishchevaya promyshlennost Price 22 k.

Ashing of preserves to determine the heavy-metal content is described, together with the determination of Pb, Cu, Sn and Cr by photoelectrocolorimetric methods. The determination of Ca and Na by flame photometry is discussed and also the determination of Mg by the complexometric method. Other components are determined by spectral analysis. The fat content determination is also described, as well as a rapid method of determining the air content in the preserve. STI

182

[Analytical methods in the canning industry.] Untersuchungsmethoden in der

Konservenindustrie. [A book]

Lange, H.-J.

298pp. ISBN 3 489 71614 0 (1972) [Numerous ref. De] Berlin, German Federal Republic: Verlag Paul Parey DM 76.--

This well produced textbook is No. 14 in the comprehensive series 'Fundamentals and developments in food analysis' under the general editorship of J. Schormüller & H. Melchior. Designed to be of assistance to both practising food technologists and students of food science, the work is divided into the following chapters: Introduction (pp. 11-16, 10 ref.); The important microorganisms (pp. 16-34, 55 ref.); Environmental factors influencing microorganisms (pp. 34-46, 73 ref.); Can materials (pp. 47-65, 70 ref.); can corrosion (pp. 65-82, 81 ref.); Control of can seals (pp. 82-103, 18 ref.); Heat treatment (pp. 103-122, 118 ref.); Determination of sterilization time (pp. 123-140, 54 ref.); Testing the canned product (pp. 140-158, 21 ref.); Chlorinated water (pp. 158-174, 50 ref.); Rheology (texture, viscosity, consistency) (pp. 174-182, 39 ref.); Colour measurement (pp. 182-190, 28 ref.); Organoleptic evaluation (pp. 190-201, 34 ref.); Chemical and physical methods of analysis (pp. 201-251, 184 ref.); and Microbiological methods of analysis (pp. 251-262, 23 ref.). A 25-pp. appendix gives useful practical information (e.g. American can sizes, conversion tables for calculating wt. and caliper of Sn coatings, chemical composition of a large range of foods, calculation of pasteurization (P) values, etc.). An 11-pp. subject index is included. HBr

183

[The prospects of using new chemical methods in the food industry.] Vyhledova koncepcce chemizace v potravinarskem prumyslu. [A book]

Danek, J.

47 pp. (1968) [9 ref. Cs] Prague: UVUPP-STI. Price 13,- Kcs.

This booklet acquaints workers in the food industry with the possibilities of using new chemical methods in individual branches of res. work, food manufacture and with the realisation of new developmental trends. It includes sections on the occurrence of foreign substances in foods, food additives, the main trends in the use of packaging materials to improve production and marketing of food products, and pesticide residues in foods. STI

184

Disc electrophoresis and related techniques of polyacrylamide gel electrophoresis. [A book]

Maurer, H. R.

xvi + 222pp. ISBN 3 11 003495 6 (1971)

[Numerous ref. En] Berlin, W. Germany: Walter de Gruyter

This monograph gives a detailed review of the principles and practical techniques of disc electrophoresis as a valuable analytical tool, particularly for fractionation of proteins,

polypeptides and nucleic acids. Examples (mainly as references) are given of various applications reported by other workers and the information supplied should provide a useful practical guide to others who may wish to consider using the method. Major sections of the book are:

Theoretical background (pp. 1-31); Methods of analytical disc electrophoresis (pp. 32-110); Micro-disc electrophoresis (pp. 111-116); Preparative polyacrylamide gel electrophoresis (pp. 117-131); Gel isoelectric focusing (pp. 132-136); Applications in clinical chemistry (pp. 137-156); Biochemical applications (pp. 157-184); and Applications in food technology and forensic analysis (pp. 185-186). The text is well produced and includes a large number of clear diagrams and illustrations of apparatus and techniques. ELC

185

Analytical procedures for the determination of vitamins in multivitamin preparations. [A book]

F. Hoffman-La Roche & Co. Ltd.

104pp. (1970) [En] Basle, Switzerland: Author

This book is divided into 3 parts: Preparation of the sample solutions of solid multivitamin preparations (pp. 13-37); Preparation of the sample solutions of liquid multivitamin preparations (pp. 41-61); and General methods of assay for vitamins in multivitamin preparations (pp. 65-104). Assay methods described include: Colorimetric determination of vitamin A by the Carr-Price method (pp. 65-66); Fluorimetric determination of thiamine (thiochrome method) (pp. 67-68); Fluorimetric determination of riboflavin (p. 69); Colorimetric determination of pyridoxine with diethyl-p-phenylenediamine (pp. 71-73); Iodometric titration of vitamin C (pp. 75-76); TLC of vitamin D and colorimetric determination with antimony trichloride (pp. 77-82); Chromatographic separation of α -tocopheryl acetate and vitamin A (pp. 83-84); Colorimetric determination of α -tocopheryl acetate by the Emmerie-Engel method (pp. 85-87); Colorimetric determination of nicotinamide with barbituric acid (pp. 89-90); Microbiological determination of vitamin B₁₂ with *Lactobacillus leichmannii* (pp. 91-92); Microbiological determination of D-biotin with *Lactobacillus arabinosus* (diffusion test) (pp. 93-95); Microbiological determination of calcium D-pantothenate with *Lactobacillus arabinosus* (pp. 97-98); Microbiological determination of D-panthenol with *Leuconostoc mesenteroides* (diffusion test) (pp. 99-102); Microbiological determination of folic acid with *Streptococcus faecalis* (pp. 103-104). VJG

RESIDUES

186

Analytical methods for pesticides, plant growth regulators and food additives. Vol. V. Additional principles and methods of analysis. [A book]

Zweig, G. (Editor)
xvii + 570pp (1967) [Numerous ref. En] New York and
London: Academic Press [Life Sci. Division, Univ.
Res. Corp., Syracuse, New York, USA]

This book contains chapters on the application of
gas chromatographic, thin layer chromatographic
and polarographic methods for the analysis of
pesticides, additives, plant growth regulators and
residues. Residue analysis in water resources,
pesticide analysis in fish and wildlife, and the
principles of pesticide metabolism studies are
also covered. Other chapters deal with the
physical, chemical, and biological properties and
methods of analysis of Azodrin, Banol, Bidrin,
binapacryl, Ciodrin, Imidan, Morestan, Difolatan,
Lanstan, pentachlorophenol and its Na salt,
amiben, bromacil, bromoxynil, 2,4-
dichlorophenoxyacetic acid, γ -(2,4-
dichlorophenoxy)butyric acid (4(2,4-DB)),
diphenamid, 4,6-dinitro-o-sec-butylphenol (DNBP),
diquat, Duraset, gibberellic acid, ioxynil,
linuron, 2-methyl-4-chlorophenoxy acetic acid
(MCPA), naphthalene acetic acid, ordram, paraquat,
Prefar, Ro-neet, succinic acid 2,2-
dimethylhydrazide, Tordon, trifluralin and Vernam.
BSG

187

**1967 evaluations of some pesticide residues in
food.** [A book]

Food and Agriculture Organization of the United
Nations; World Health Organization
442pp. (1968) [Numerous ref. En] Rome: Author.
Price 24s.

This document contains summaries of data
considered by the Joint Meeting of the FAO Working
Party of Experts and the WHO Expert Committee on
Pesticide Residues in Rome in Dec. 1967, in
arriving at recommendations for acceptable daily
intakes, tolerances and methods of analysis.
Monographs are included on the following
pesticides: aldrin, carbaryl, carbon disulphide,
carbon tetrachloride, chlordane, DDT, demeton,
diazinon, dichlorvos, dieldrin, dimethoate,
diphenyl, endosulphan, ethylene dibromide,
ethylene dichloride, ferbam, heptachlor, hydrogen
phosphide, lindane, malathion, mancozeb, maneb,
methyl bromide, MGK 264, nabam, organomercury
compounds, oxydemeton-methyl, parathion, piperonyl
butoxide, pyrethrins, thiram, zineb and ziram. VJG

188

**Further review of certain persistent
organochlorine pesticides used in Great
Britain.** [A book]

United Kingdom, Department of Education and
Science
iii + 148pp. (1969) [19 ref. En] London: H. M.
Stationery Office. Price 12s 6d.

This report by the Advisory Committee on
Pesticides and other Toxic Chemicals, considers
the following topics: The effects of pesticides on
wildlife (pp. 4-12); Residues in food (pp. 12-16);
Effects on man (pp. 17-20); Distribution in the
environment (pp. 20-23); Commercial uses (pp. 23-

54); and Home uses (pp. 54-58). Recommendations
are made concerning the use of organochlorine
pesticides. Selective studies on foodstuffs which
indicate a trend of residue levels over a
number of years are discussed and the results are
summarized in an appendix. Mean levels (ppm) of
organochlorine pesticide residues (BHC isomers,
dieldrin and DDE/TDE/DDT) in foods, are given for:
beef kidney fat, mutton kidney fat, butter, fresh
milk, dried milk, eggs, poultry meat, carrots,
strawberries, cod-liver oil, orange juice, tinned
baby foods, cheese, lard, cooking oils and fats,
suet, olive oil, fish, flour, breakfast cereals,
jam, marmalade, and blackcurrants. VJG

189

Analytical methods for pesticide residues in foods.
[A book]

McLeod, H. A.; Wales, P. J.; Graham, R. A.;
Osadchuk, M.; Bluman, N. (Canada, Food & Drug
Directorate) (Editors)
239pp. (1969) [47 ref. En] Ottawa, Canada:
Dept. of National Health and Welfare Price \$5.00

The analytical methods in this comprehensive
manual on pesticide analysis are based on the
premise that with the ever increasing number and
use of pesticides, a systematic approach to residue
analysis involving broad screening procedures is
necessary, rather than specific methods for specific
residues on specific crops, etc. The book is divided
into 15 sections (separate pagination for each
section), each containing information on an
analytical technique. A number alternative
procedures are given in each section. Section
headings are: Introduction (5pp.); A systematic
approach to the analysis of pesticide residues
(8pp.); Sampling (3pp.); Laboratory preparation of
sample (4pp.); Extraction procedures (34pp.);
Liquid-liquid partition system (15pp.); Major
cleanup procedures (34pp.); Determinative
procedure (31pp.); Thin layer chromatography
(23pp.); Paper chromatographic procedures (3pp.);
Initial interpretation of screening procedure results
(20pp.); Confirmatory chemical reactions (11pp.);
Preparatory procedures (16pp.); Standards (1 p.);
and Information on additional apparatus (10pp.). A
5pp. bibliography is included and an appendix lists
common foods (apples, carrots, grapes, lettuce,
peaches, pears, potatoes, strawberries) and the
pesticides allowed in Canada for controlling pests
during their production and distribution.
Established tolerances (ppm) are given. JA

190

**Pesticide terminal residues. Invited papers from the
International Symposium on Pesticide Terminal
Residues held at Tel-Aviv, Israel 17-19 February
1971.** [Book]

Tahori, A. S. (International Union of Pure &

Applied Chemistry) (Editor)
viii+365pp. ISBN 0 408 70290 7 (1971) [many
ref. En] London, WC2B 6AB, UK, Butterworth
& Co. (Publishers) Ltd. Price £12 (Inst. for Biol.
Res., Ness Ziona, Israel)

Papers presented at the symposium included:
Terminal residues of organophosphorus insecticides
in plants, by H. Frehse (pp. 9-32, 93 ref.); Terminal
residues of organophosphorus insecticides in
animals, by H. O. Esser (pp. 33-56, 151 ref.);
Terminal residues of phosphonate insecticides, by J.
J. Menn (pp. 57-77, 38 ref.); Instrumentation in
determination of organophosphorus terminal
residues, by M. Beroza & M. C. Bowman (pp. 79-
92, 48 ref.); Organochlorine compounds in the
environment in Japan, by M. Goto (pp. 105-110, 5
ref.); Fate of insecticidal chlorinated
hydrocarbons in storage and processing of foods, by
P. B. Polen (pp. 137-143, 19 ref.); Occurrence of
insecticidal chlorinated hydrocarbons and their
breakdown products in man and resulting
toxicologic consequences, by R. Fabian, T. B.
Griffin & F. Coulston (pp. 145-160, 22 ref.);
Carbaryl residues in milk and meat of dairy
animals, by H. W. Dorough (pp. 173-183, 10 ref.);
Toxicological considerations of metabolism of
carbamate insecticides: methomyl and carbaryl, by
R. L. Baron (pp. 185-197, 28 ref.); The metabolic
fate of Dithane M-45 (coordination product of zinc
ion and manganous ethylenebisdithiocarbamate),
by W. R. Lyman (pp. 243-256, 8 ref.) and The fat
of carboxin in soil, plants and animals, by W. T.
Chin, G. M. Stone & A. E. Smith (pp. 271-279, 6
ref.). JA

191

**Toxicology, biodegradation and efficacy of
livestock pesticides.** [Book]

Khan, M. A.; Haufe, W. O. (Editors)
x+433pp. ISBN 90 265 0158 7 (1972) [many ref.
En] Amsterdam, Netherlands, Swets & Zeitlinger
Price £7.40

Papers in this book include: The elimination of
organophosphorus compounds from animals, by D.
MacDougall (pp. 93-122, 46 ref.);
Organophosphorus insecticides: their occurrence in
food and the problem of tolerances, by E. Poulsen
(pp. 123-139, 42 ref.); Pesticides in the
environment and their significance, by H. Egan (pp.
140-159, 45 ref.); Physiological and biochemical
parameters in toxicology of pesticides and their
significance, by K. P. Dubois (pp. 160-181, 19 ref.);
and The toxicity of pesticides to man, by D. V.
Roberts & A. Wilson (pp. 182-207, 19 ref.).
DMK

192

**[The risk of carcinogenic effects caused by food
constituents.]** [A lecture]

Genderen, H. van

Voeding 32 (12) 624-630 (1971) [15 ref. Nl]

[Inst. Vet. Farmacologie en Toxicologie, Univ.,
Utrecht, The Netherlands]

This review-type article discusses the subject
under the following headings: tests for
carcinogenicity, tests giving negative results,
indirect carcinogenesis, and co-carcinogenesis.
MDB

193

[Carcinogenic substances in food products.]

Kantserogeny i pishchevye produkty. [Book]
Neiman, I. M.

152pp. (1972) [numerous ref. Ru] Moscow,
USSR, Izdatel'stvo Meditsina. Price 0.88 r

This book deals with the following subjects:
Chemical compounds with carcinogenic activity (pp.
4-55); Sources of carcinogenic chemical materials in
foods and their effects (pp. 55-93); Formation of
carcinogenic substances in the course of some food
preparation processes (pp. 93-111); Carcinogenic
substances possibly affecting food products during
packaging and transport (pp. 111-116); Vegetable
material possessing carcinogenic activity which may
get into foods (pp. 116-128); and Principles of
prophylaxy (pp. 128-152). STI

194

**[Cs-137 from global fallout in foodstuffs and the
human organism.]** Tsezii-137 global'nykh

vypadenii v produktakh pitaniya i organizme
cheloveka. [A book]

Prokof'ev, O. N.; Nevstrueva, M. A.; Perova, A.
A.; Shvydko, N. S.; Shapiro, E. L.; Dzyubenko, I.
I.; Krisyuk, E. M.

21pp. (1969) [18 ref. Ru] Moscow, USSR:
Atomizdat [Gosudarstvennyi Komitet po
Ispol'zovaniyu Atomnoi Energii SSSR, Moscow,
USSR]

Data are presented for ¹³⁷Cs contents of
foodstuffs and human intake in the USSR between
1962 and 1968, but mainly for 1965-1968. In the
latter period, the level of ¹³⁷Cs contamination
decreased more rapidly in cereals than in other
products, with the result that the % contribution of
¹³⁷Cs to the diet by cereal products declined from
50 to 35%, whereas that of meat increased from 15
to 30% and that of potato from 8 to 14%; %
contribution by milk remained approx. stationary
at ~26%. The concn. of ¹³⁷Cs in milk in the zone
where cows were mostly stabled declined from
~102 pCi/l. at the beginning of 1965 to ~17 pCi/l. at
the beginning of 1968, whereas in the zone where
cows were mostly on pasture it declined from
~146 pCi/l. to ~30 pCi/l. Similar trends were found
in these 2 zones for meat between 1965 and 1967:
the decline was from ~84 to ~41 pCi/kg in the 1st
zone and from ~133 pCi/kg (beginning of 1966) to
~91 pCi/kg in the latter. SKK

195

Working party on the monitoring of foodstuffs for heavy metals: survey of lead in food. [Book]
UK, Ministry of Agriculture, Fisheries & Food
31pp. (1972) [38 ref. En] H. M. Stationery
Office, London, UK Price £0.21

Lead in Total Diet samples and in individual fresh, canned and frozen foods was monitored by atomic absorption spectrophotometry. About 3000 analyses are reported for: Pb in Total Diet samples; Pb in individual food items of the national diet; Pb in fish landed in Great Britain; Pb in fish and shellfish from the Bristol Channel and Cardigan Bay; Pb in crops and vegetables grown near a metal refining plant. The Schedule to the Lead in Food Regulations 1961 is given in an appendix. Some conclusions are: Pb content of national diet is approx. 0.13 mg/kg (200 µg/person/day); Pb in canned baby-food is 0.24 mg/kg; Pb in baby food in jars was 0.04 mg/kg; Pb in shellfish was higher than in fish from the same area; more information is required on the uptake of Pb by crops grown near Pb refineries and smelters, or on land treated with sewage sludge. JN

196

Working party on the monitoring of foodstuffs for mercury and other heavy metals: survey of mercury in food. [Book]

UK, Ministry of Agriculture, Fisheries & Food
33pp. (1971) [13 ref. En] H. M. Stationery
Office, London, UK Price £0.20

Approx. 4000 samples of food were analysed by flameless atomic absorption spectrophotometry for total mercury. Groups of food examined include: Total Diet samples; major food items of national diet and canned fish; animal feeds; fish landed in England and Wales from middle-distance and distant waters; fish from coastal waters of England and Wales; main species of fish; shellfish from coastal waters; freshwater fish. Some conclusions were: intake of Hg is approx. 7-8 µg/person/day; Hg concn. in canned and fresh fish and shellfish are higher than in other foods - intake from fish approx. 2 µg/person/day; fish from Thames Estuary, Mersey Estuary and Lune Deep contained Hg concn. of 0.45, 0.57 and 0.64 mg/kg respectively; 90% of Hg in fish was present as methylmercury. JN

197

Mercury in the environment. [Book]

Friberg, L.; Vostal, J.
215pp. (1972) [28pp. of ref. En] Cleveland,
Ohio 44128, USA, CRC Press. Price \$33.50
[Dept. of Environmental Hygiene, Karolinska Inst.,
Stockholm, Sweden]

This well-produced work is one in the "Uniscience" series initiated by the Chemical Rubber Co. The subject is covered under the headings: Methods of analysis, by G. Lindstedt

& S. S. Skerfving (pp. 3-13); Transport and transformation of mercury in nature and possible routes of exposure, by J. Vostal (pp. 15-27); Metabolism, by G. F. Nordberg & S. Skerfving (pp. 29-91); Symptoms and signs of intoxication, by S. Skerfving & J. Vostal (pp. 93-107); 'Normal' concentration of mercury in human tissue and urine, by S. Skerfving (pp. 109-112); Inorganic mercury - relation between exposure and effects, by L. Friberg & G. F. Nordberg (pp. 113-139); Organic mercury compounds - relation between exposure and effects, by S. Skerfving (pp. 141-168); Genetic effects, by C. Ramel (pp. 169-181); General discussion and conclusions - need for further research, by L. Friberg & J. Vostal (pp. 183-186). A detailed reference list (pp. 187-215) is appended. JN

QUALITY CONTROL

198

[Quality control and the use of quality standards in the food industry.] Kontrola jakości i stosowania norm technicznych w przemyśle spożywczym. [A book]
Bogdach, J.; Grabowski, Z.
212pp. (1971) [67 ref. Pl] Warsaw, Poland:
Wydawnictwo Naukowo-techniczne. Price 20.50 z.

Present methods of working out technical standards for food quality control are dealt together with their application in practice. Methods of food quality control are discussed in detail and the organization of food quality control in Poland is described. STI

199

Quality control in the food industry. Vol. I. [A book]
Herschdoerfer, S. M. (Editor)
xiv + 385pp. (1967) [Numerous ref. En] London & New
York: Academic Press. Price 90s [T. Wall & Sons
(Ice Cream) Ltd., London, England]

This 1st volume deals with aspects of the subject common to all branches of the food industry, under the headings: 'Organization of quality control' by J. Hawthorn (pp. 1-31); 'Health problems in quality control: Chemical aspects' by A. C. Frazer (pp. 33-66); 'Health problems in quality control: Microbiological aspects' by B. Hobbs (pp. 67-120); 'Statistical methods in quality control' by E. H. Steiner (pp. 121-234); 'Tasting panels: Sensory assessment in quality control' by N. T. Gridgeman (pp. 235-83); 'Food standards - their importance, limitations and problems with special reference to international work' by F. Townshend (pp. 285-365). A detailed author index to references and a good subject index are given. JN

200

Quality control in the food industry. Vol. II. [A book]

Herschdoerfer, S. M. (Editor)

xv+440pp. (1968) [Numerous ref. En] London & New York: Academic Press. Price 110s [T. Wall & Sons (Ice Cream) Ltd., London, England]

This 2nd volume contains essays which review quality control in some major branches of the food industry. Chapters included are: 'Water', by R. C. Hoather & E. English (pp. 1-27); 'Dairy products', by J. G. Davis (pp. 29-194); 'Flour and bread', by A. J. Amos (pp. 195-217); 'Flour confectionery', by J. H. Bushill (pp. 219-49); 'Meat and meat products', by E. F. Williams (pp. 252-301); 'Fish and fish products', by C. L. Cutting & R. J. Spencer (pp. 303-53); 'Edible fats and oils', by A. P. van der Vet (pp. 355-406). A detailed author index to all references and a good subject index are provided. JN

201

Quality control for the food industry. Vol. I - Fundamentals. [A book]

Kramer, A.; Twigg, B. A.

3rd edition xi+556pp. ISBN 0 87055 072 1 (1970) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co., Inc. Price \$16.50 (US) \$17.50 (Foreign) [Univ., Coll. Park, Maryland, USA]

This is the 3rd edition of a book first published in 1961. The material has been updated, and restricted to cover only the fundamentals of the subject, under the headings: Responsibilities and organization of quality control department; Some general principles; Colour and gloss; Viscosity and consistency; Size and shape; Defects; Kinesthetics or texture; Flavour; Taste testing; Microanalytical and microbiological methods; Chromatographic methods; Government and trade standards of quality; Development of grades and standards of quality; Acceptance sampling and inspection; Recording and reporting - control charts; Evolutionary operations - EVOP; Production control; Inventory control and budgeting; Transportation. Appendices include: Outline of statistical methods; Glossary of symbols and terms. A subject index is included. JN

202

Quality control for the food industry. Vol. 2 - Applications. [Book]

Kramer, A.; Twigg, B. A. (Editors)

Third edition ix+550pp. ISBN 0 87055 133 7 (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$19.00 (USA) \$20.00 (foreign) [Univ. of Maryland, College Park, USA]

This well-produced handbook on analytical and quality control procedures for particular commodities covers the subject under the chapter headings: Meat and meat products, by W. L. Sulzbacher (pp. 1-39, 37 ref.); Poultry and egg

products, by M. H. Taylor & D. E. Bigbee, (pp. 40-91, 101 ref.); Dairy products, by W. S. Arbuckle (pp. 92-156, 46 ref.); Fruits and vegetables, by A. Kramer (pp. 157-228, 68 ref.); Citrus products, by R. F. Matthews & L. E. Gray (pp. 229-265, 87 ref.); Cereals and cereal products, by Y. Pomeranz (pp. 266-327, 91 ref.); Fats and oils, by T. J. Weiss (pp. 328-352, 5 ref.); Spices, by A. A. Bednarczyk (pp. 353-383, 18 ref.); Sanitation, by the National Canners Association (pp. 384-414, 23 ref.); Water and waste control, by J. M. Wilson & B. A. Twigg (pp. 415-467, 42 ref.); and Methods of nutrient analysis, by C. A. Dayis & A. Kramer (pp. 468-506, 57 ref.). A 6-pp. subject index is appended. [See FSTA (1971) 3 7A295 for Vol. 1.] JN

203

Quality control in the food industry. Vol. 3. [A book]

Herschdoerfer, S. M. (Editor)

xiv+486pp ISBN 12 342903 (1972) [Numerous ref. En] London, UK: Academic Press Inc. (London) Ltd. Price £8.00

This 3rd volume contains essays which examine quality control in some specific branches of the food industry. Chapters included are: Quality control of fruits and vegetables and their products, by D. Dickinson [with V. D. Arthey & D. E. C. Crean] (pp. 1-34, 30 ref.); Canned and bottled food products (soups, mayonnaise, sauces and vinegar), by D. A. Shapton (pp. 35-79, 155 ref.); Alcoholic beverages and vinegars, by H. J. Bunker (pp. 81-149, 247 ref.); Soft drinks, by W. Price-Davies & D. McDonald (pp. 151-190, 18 ref.); Flavouring materials and their quality control, by G. Wellner (pp. 191-228, 33 ref.); The sugar industry, by E. G. Muller (pp. 229-258, 32 ref.); Chocolate and sugar confectionery, jams and jellies, by P. Lindley (pp. 259-295, 25 ref.); Quality control of prepared food mixes, by E. Feliciotti (pp. 297-325, 70 ref.); Frozen desserts, by J. L. Henderson (pp. 327-371, 15 ref.); Quality assurance of incoming packaging materials for the food industry, by M.-G. Tarver & C. L. Smith (pp. 373-415, 29 ref.); and Automatic control, by H. A. Slight (pp. 417-461, 12 ref.). A detailed author index to all references and a subject index are also provided. [See FSTA 1 5C169 for vol. 2.] SAC

204

[Automatic control of composition and properties of food products.] Avtomaticheskii kontrol' sostava i svoistv pishchevykh produktov. [A book]

Dikii, B. F.

275pp. (1968) [114 ref. Ru] Moscow: Izdatel'stvo 'Pishchevaya Promyshlennosti' Price 1.04 Roubles

This book, intended for technical personnel in the food industry and for students at food sci.

coll., deals with automation of various methods of analysis, (optical, fluorescence, ultrasonic, radioactive, nuclear magnetic resonance, conductometric, potentiometric, polarographic, titrimetric and chromatographic) and contains a chapter on prospects for development in automation. Information is given about the new State Instrumentation System, whose objects include rationalization of nomenclature, type specification and selection of standards and their introduction in industry. SKK

205

[Quality control in the meat and fish trade.]
Kontrol' kachestva myasa i ryby v torgovlya. [A book]

Tylkin, V. B.; Kononenko, I. E.
152pp. (1969) [Ru] Moscow, USSR: Izdatel'stvo 'Economika'. Price 0.42 rouble

This practically orientated book is divided into 3 sections: organization of quality control in the trade network (pp. 6-35); methods of organoleptic evaluation of meat and fish and their products (pp. 35-142); and laboratory test methods for quality control (pp. 143-52). HBr

PHYSICAL PROPERTIES

206

Bibliography of physical properties of foodstuffs.
Bibliografie fyzikalnich vlastnosti potravin. [A book]

Adam, M. (Editor)
xiii + 375pp. (1969) [En, Cs] Prague: CAZ - Vyzkumny ustav potravinarskeho prumyslu, odbor strojniho vyzkumu.

207

Emulsion science. [A book]

Sherman, P. (Editor)
x + 496pp. (1968) [Numerous ref. En] London: Academic Press. Price 115s. [Unilever Res. Lab., The Frythe, Welwyn, Herts, England]

208

An introduction to food rheology. [Book]

Muller, H. G.
xi + 148pp. SBN 434 91275 1 (1973) [many ref. En] London, UK, William Heinemann Ltd. Price £2.75 [Proctor Dept. of Food and Leather Sci., Univ. of Leeds, UK]

This book is intended to teach food rheology to students and food technologists in industry without the use of calculus and mathematics beyond 'O' level. This is achieved by explaining rheology with visual models and by concentrating on techniques and the properties of real food. Chapters are: Introduction (pp. 1-8); Solids: characteristics and measurement (pp. 9-21); Solids: examples (pp. 22-27), covering spaghetti and eggshell; Newtonian liquids: characteristics and measurement (pp. 28-45); Newtonian liquids: examples (pp. 46-56), covering sugar solutions, milk and oils; Non-Newtonian liquids: characteristics and measurement (pp. 57-65); Non-Newtonian liquids: examples (pp. 66-74), covering honey, soups and hydrocolloid solutions; Plasticity and its measurement (pp. 75-87); Plastic foods: examples (pp. 88-96), covering foams, melted chocolate and fats; Viscoelasticity and its measurement (pp. 97-109); Viscoelastic materials: examples (pp. 110-121), covering viscoelastic liquids, gelatin gels, wheat flour dough and baked products; and Solids in contact (pp. 122-128). 3 appendices are: Laboratory experiments (pp. 129-134); Viscosity and density of water (p. 135); and Symbols, units and conversion factors (pp. 136-138). JA

209

Consistency of foodstuffs. [Book]

Sone, I.
x + 188pp. ISBN 90 277 0219 5 (1972) [many ref. En] Dordrecht, The Netherlands, D. Reidel Publishing Co. Price f57.00

This translation of an original first published in Japanese in 1966 covers the subject under the chapter headings: What is food consistency? (pp. 1-6, 6 ref.); Objective measurements of consistency (pp. 7-49, 30 ref.); Consistency of respective foods (milk, syrups, juices, purées, gels, egg white, rennet milk, kamaboko, vegetables, fruits, meat, meat products, potatoes, rice, macaroni, spaghetti, udon (noodles), fats, ice cream, powders) (pp. 50-148, 146 ref.); Abnormal flow properties of foodstuffs (condensed milk, fats, candy, butter) (pp. 149-158, 14 ref.); Sensory assessment of firmness (pp. 159-170, 9 ref.); and Application of consistency in food technology (pp. 171-178, 8 ref.). An author index and subject index are provided. JN

210

Rheology and texture of foodstuffs. S.C.I.

Monograph No. 27. [A book]
Society of Chemical Industry
1-100pp. (1968) [Numerous ref. En] London: Society of Chemical Industry

The following papers, with discussions, are presented from a symposium held in Jan. 1967: 'An introduction', by G. W. Scott Blair (pp. 3-8);

'Texture and consistency from the standpoint of perception: some major issues', by R. Harper (pp. 11-28); 'The biorheological process of mastication', by B. Drake (pp. 29-39); 'Psychophysical studies on the consistency of liquid foods [including cream soups]', by F. W. Wood (ps. 40-49); 'Measurement of viscoelastic parameters in food materials [apple, potato, Cheddar cheese and maize grain]', by N. N. Mohsenin & C. T. Morrow (pp. 50-76); 'An automated parallel-plate viscoelastometer for studying the rheological properties of solid food materials [madeira cake and margarine]', by F. Shama & P. Sherman (pp. 77-90); 'Texture of agar jellies: measurement and modification', by N. R. Jones (pp. 91-100). JMD

211

Rheology and texture of foodstuffs. S.C.I. Monograph No. 27. [A book] Society of Chemical Industry 101-279pp. (1968) [Numerous ref. En] London: Society of Chemical Industry

The following papers, with discussion, are presented from a symposium held in Jan. 1967: 'Mechanical behaviour of dilute gelatin gels under large strains', by A. G. Ward & W. G. Cobbett (pp. 101-19); 'Histological observations on the texture of fish muscle', by R. M. Love (pp. 120-33); 'Factors modifying meat tenderness', by R. A. Lawrie (pp. 134-50); 'Effect of potassium iodate on creep and recovery and on thiol and disulphide contents of wheat flour doughs', by A. H. Bloksma (pp. 153-67); 'Rheology of wheat flour doughs in relation to baking quality', by P. W. Heaps & J. B. M. Coppock (pp. 168-80); 'Aspects of dough rheology', by H. G. Muller (pp. 181-96); 'Rheological effects produced by additives to wheat flour dough', by C. B. Funt et al. (pp. 197-202); 'Strength of wheat flour dough in uniaxial tension', by C. H. Lerchenthal & C. B. Funt (pp. 203-24); 'A texture meter for the measurement of biscuit hardness', by P. Wade (pp. 225-35); 'Consistency of cake batters', by P. Autard (pp. 236-48); 'Effect of mechanical treatment on some rheological properties of butter', by I. Vasic & J. M. deMan (pp. 251-64); 'Measurement of some flow properties of market cream', by J. H. Prentice (pp. 265-79). JMD

212

Physical properties of plant and animal materials. Vol. 1. Structure, physical characteristics and mechanical properties. [A book] Mohsenin, N. N.

xv+734pp. SBN 677 02300 6 (1970) [Numerous ref. En] New York, USA: Gordon & Breach Science Publishers Inc. Price \$36.00 (£15.00 in UK) [Dept. of Agric. Eng., St. Univ., University Park, Pennsylvania, USA]

This book attempts to collate and analyze those physical properties of economically important plant and animal materials which are significant in

their physical description and mechanical characterization insofar as their applications in design of machines, structures, processes, and quality evaluation and control are concerned. Biomaterials covered include: grains and seeds, forage and silage, fruits and vegetables, meats, eggs and dairy products as well as organic fluids and some processed food materials. Chapters are: Importance [of physical, mechanical, thermal, electrical and optical properties of biomaterials] (pp. 1-14); Structure and retention of water (pp. 15-50, 19 ref.); Physical characteristics (pp. 51-87); Some basic concepts of rheology (pp. 88-173, 42 ref.); Rheological properties (pp. 174-277); Contact stresses between bodies in compression (pp. 278-308); Rheology and texture of food materials (pp. 309-382); Mechanical damage (pp. 383-494); Aero- and hydrodynamic characteristics (pp. 495-555); and Friction (pp. 556-642). An appendix (pp. 643-689) gives tabulated data on physical properties of materials and data for conversion of units. The book also includes a bibliography (pp. 690-720) and a subject index. JA

MICROBIOLOGY

213

[Fundamentals of bacteriology for dairy factories.] Grondslagen van het bacteriologisch onderzoek voor de zuivelfabriek. (2nd edition) [A book] Posthumus, G.

192pp. (1968) [Nl] Apeldoorn, The Netherlands: Landelijke Stichting Beroepsopleiding Levensmiddelen-Industrie

This well-prepared, practically oriented textbook covers the rudiments of general bacteriology, the bacteriology of milk, the main bacteriological test methods, growth of various dairying organisms, analysis of dairy products, incidence of coliform bacteria, yeasts and moulds, and bacteriological standards for various dairy products. HBr

214

[Microbiology in the food industry.] Potravinarska mikrobiologie. [A book] Hampl, B. 276 pp. (1968) [Cs] Prague: SNTL/ALFA. Price 25,- Kcs.

A univ. text-book and a handbook for food microbiologists. It contains an explanation of general microbiology with a special view to the activity of useful and harmful micro-organisms in the food industry. It also includes surveys of the system of grouping bacteria, yeasts and moulds, important in the food industry. A review of the microbiology of individual food industry branches and used raw materials (sugar, starch, eggs, spices, salt) including the microbiology of

packing, water and air is given. Attention is paid to the microbiological standards of raw materials and final products, and hygienic and sanitary measures in food production. The book is designed for students of food technology and chemical technology and is at the same time a suitable compendium for workers in microbiology lab. and technology in the food industry. STI

215

Miniaturized microbiological methods.

Hartman, P. A.

Advances in Applied Microbiology 1968 (Suppl.1) xiii + 227pp. (1968) [Numerous ref. En] New York and London: Academic Press. Price 98s [Dept. Bact., St. Univ., Ames, Iowa, USA]

This book gives brief descriptions of techniques which effect some degree of miniaturization compared with conventional methods, and which utilize growing cells or evaluate a property of cells grown 'en masse'. Emphasis is placed on the techniques themselves, rather than on the biological systems for which they were originally developed, thereby widening the scope of the book as a methodological index. CDA

216

Type strains of Lactobacillus species. A report by the Taxonomic Subcommittee on Lactobacilli and Closely Related Organisms. A subcommittee of the International Committee on Nomenclature of Bacteria of the International Association of Microbiological Societies. [A book]

Hansen, P. A. (Secretary)

89pp. (1968) [60 ref. En] Rockville, Maryland, USA: American Type Culture Collection.

In this taxonomic study, 15 methods used for identification of *Lactobacillus* spp. by some or all of the 9 participating laboratories are described (pp. 7-21). Data collected on 20 ATCC and 2 NCDO strains are given on pp. 21-52 and descriptions of the strains are summarized on pp. 53-75. As a result of this study, the Subcommittee recommend that the genus *Lactobacillus* should include 9 type, 3 neotype and 2 reference strains; 3 further strains are still under study as possible neotypes. CDA

217

A manual of methods for the bacteriological examination of frozen foods. [A book]

Hall, L. P.

110pp. (1968) [23 ref. En] Chipping Camden, Glos., England: The Fruit and Vegetable Preservation Res. Association

A scheme of analysis to detect and enumerate the total flora and to differentiate between spp. or groups of spp. of practical interest is described. Expt. details are given for sampling, sample preparation and determination of counts of total

mesophilic and psychrophilic aerobes, staphylococci, group D streptococci, coliforms, *Escherichia coli*, clostridia, and salmonellae. The significance of results is discussed. Methods of preparation of 27 media, solutions or stains required for analyses are given. JN

218

Principles of food science. 2. Food microbiology and biochemistry. [A book]

Borgstrom, G.

xiv + 473pp. (1968) [Numerous ref. En] New York: Macmillan Co. Price 120s. [St. Univ., Michigan, USA]

This volume considers processing, sanitation and waste disposal in the food industry under the headings: 'Food commodity chemistry' (pp. 1-44), 'Biochemistry of preserved foods' (pp. 45-82), 'Microbiology of preserved foods' (pp. 103-26), 'Food sanitation and public health' (pp. 127-70), 'Additives and contaminants' (pp. 171-208), 'Food and radioactive fallout' (pp. 209-25), 'Waste and pollution of food industries' (pp. 226-40), 'Food storage and losses' (pp. 241-92), 'Trends in food utilization' (pp. 293-344), 'Trends in food marketing' (pp. 345-66), 'Food preservation in a modern society' (pp. 367-87) and 'The world food issue' (pp. 388-454). There is a 10pp. index.

JN

219

Industrial microbiology. [A book]

Casida, L. E., Jr.

xi + 460pp. (1968) [Numerous ref. En] New York, London, Sydney: John Wiley & Sons Inc. Price 130s [St. Univ., Univ. Park, Pennsylvania, USA]

This book was written as an introductory text to provide college students and industrial technicians with a knowledge of the theory and practice of various aspects of industrial microbiology. The book is divided into 4 parts: 'Introduction' (pp. 3-49); 'Basis and development of industrial fermentation processes' (pp. 51-218); 'Typical fermentation processes' (pp. 219-415); and 'The future' pp. 417-37. The introduction considers the scope of industrial microbiology and gives a detailed description of fermentation equipment. The following chapters are included: 'Screening' pp. 55-75; 'Detection and assay of fermentation products' pp. 76-113; 'Stock cultures' pp. 114-16; 'Fermentation media' pp. 117-35; 'Inoculum preparation' pp. 136-41; 'Scale-up of fermentations' pp. 142-43; 'Increasing product yields' pp. 144-50; 'Phage' pp. 151-60; 'Dual or multiple fermentations' pp. 161-63; 'Continuous fermentations and late nutrient additions' pp. 164-74; 'Biological waste treatment' pp. 175-90; 'Patents and secret processes' pp. 191-207; 'Fermentation economics' pp. 208-18; 'Antibiotic fermentations' pp. 221-57; 'Anaerobic fermentations' pp. 258-314; 'Environmental control of metabolic pathways' pp. 315-22; 'Genetic control of metabolic pathways' pp. 323-32; 'Microbial oxidative transformations of substrate' pp. 333-51;

'Hydrocarbon fermentations' pp. 352-58; 'Microbial cells as fermentation products' pp. 359-76; 'Vitamins and growth stimulants' pp. 377-89; 'Enzymes as fermentation products' pp. 390-401; 'Organic acids' pp. 402-16; 'outlook for industrial microbiology' pp. 419-437. VJG

220

Recent advances in food science. Volume 4. Low temperature biology of foodstuffs. [A book] Hawthorn, J.; Rolfe, E. J. (Editors) xii + pp. 1-250 (1968) [Numerous ref. En] Oxford: Pergamon Press. Price 120s. [Dept. of Food Sci., Univ., Strathclyde, Scotland]

This volume, with 1 additional paper, forms the proceedings of a NATO advanced study institute held at Strathclyde Univ. in Sept. 1966. The extent to which scientific knowledge of low temp. biology is being applied in current industrial practice is illustrated. Papers presented in the 1st part of the book are: 'The structure of water and of aqueous solutions', by G. Nemethy (pp. 1-21, 23 ref.); 'Nucleation and growth of ice crystals in water and biological systems', by J. Hallet (pp. 23-52, 30 ref.); 'The formation of ice and the physical behaviour of the ice phase in aqueous solutions and in biological systems', by B. J. Luyet (pp. 53-77, 29 ref.); 'Thermodynamics of freezing in porous solids', by J. M. Haynes (pp. 79-104, 47 ref.); 'Ice formation in frozen muscle', by R. M. Love (pp. 105-24, 68 ref.); 'Ice formation within plants, the resulting damage and recovery', by I. Modlibowska (pp. 125-33, 6 ref.); 'Protective mechanisms in frost-hardy plants', by K. A. Santarius (pp. 135-51, 30 ref.); 'Physical effects during ice formation in plants', by D. B. Idle & M. A. Hudson, (pp. 153-75, 18 ref.); 'Aspects of freezing important in the freeze-drying of living cells', by J. D. Davies (pp. 177-204, 73 ref.); 'Physicochemical changes in foods during freezing and subsequent storage', by L. van den Berg (pp. 205-19, 20 ref.) 'Nature of psychrophilic micro-organisms', by J. L. Stokes (pp. 221-33, 47 ref.); 'The influence of cold storage of milk on its microflora and its suitability for cheesemaking', by G. Mocquot & R. Duchizeau (pp. 235-50, 62 ref.). [See following abstr.] JA

221

Recent advances in food science. Volume 4. Low temperature biology of foodstuffs. [A book] Hawthorn, J.; Rolfe, E. J. (Editors) pp. 251-458 (1968) [Numerous ref. En] Oxford: Pergamon Press. Price 120s. [Dept. of Food Sci., Univ., Strathclyde, Scotland]

[See preceding abstr.] Papers presented in the latter part of the book are: 'Effect of freezing and thawing on the microbial population of foodstuffs', by J. Christophersen (pp. 251-69, 56 ref.); 'Low temperature injury to fruits and vegetables', by J. C. Fidler (pp. 271-83, 61 ref.); 'The freezing of fruits and vegetables - historical and general', by T. N. Morris (pp. 285-

98, 24 ref.); 'Principles of freezing and low temperature storage, with particular reference to fruit and vegetables', by J. Gutschmidt (pp. 299-318, 54 ref.); 'Gelation of egg yolk upon freezing and thawing', by W. D. Powrie (pp. 319-31, 58 ref.); 'The effect of freezing and frozen storage on the proteins of fish muscle', by J. I. Connell (pp. 333-58, 174 ref.); 'The interaction of freezing and post-mortem changes in muscle', by R. A. Lawrie (pp. 359-80, 89 ref.); 'Objective tests for frozen food quality', by R. L. Olson (pp. 381-97, 18 ref.); 'Cold storage life of frozen fruits and vegetables as a function of time and temperature', by D. G. Guadagni (pp. 399-412, 19 ref.); 'Frozen meat', by M. Jul (pp. 413-28, 20 ref.); 'Deterioration and storage life of frozen fish', by W. J. Dyer (pp. 429-47, 76 ref.). JA

223

An introduction to industrial mycology. [A book] Smith, G. 6th edition ix + 390pp. (1969) [Numerous ref. En] London: Edward Arnold (Publishers) Ltd. Price 80s

This revised sixth edition is suitable for students and graduates in the brewing industry and other industries concerned with the use of fungi. It contains descriptions and illustrations of most of the genera of moulds used in industrial processes, with detailed consideration being given to the more important ones. Considerable reorganization of the material has occurred and the section on the Actinomycetes has been completely rewritten. The following chapters are included: 'General morphology and classification' (pp. 6-20); 'Nomenclature' (pp. 21-27); 'Zygomycetes' (pp. 28-43); 'The Ascomycetes' (pp. 44-54); 'The yeasts' (pp. 55-72); 'Fungi imperfecti' (pp. 73-85); 'Hyphomycetales' (pp. 86-136); 'Aspergillus' (pp. 137-71); 'Penicillium and related genera' (pp. 172-217); 'Laboratory equipment and technique' (pp. 218-63); 'Physiology of mould fungi' (pp. 264-77); 'The maintenance of a culture collection' (pp. 278-91); 'The control of mould growth' (pp. 292-309); 'Industrial uses of fungi' (pp. 310-26). VJG

224

[Practical microbiology of foodstuffs.] Tekhnicheskaya mikrobiologiya pishchevykh produktov. [A book] Bogdanov, V. M.; Bashirova, R. S.; Kirova, K. A.; Korneev, I. P.; Kostrova, E. I.; Petrzhiikovskaya, L. M.; Pankratov, A. Ya.; Svitych, K. A. 774pp. (1968) [289 ref. Ru] Moscow: Izdatel'stvo 'Pischevaya Promyshlennost' Price 1.79 Roubles

This book is intended as a textbook for students of food colleges. The subject is in 21 chapters of which 9 (pp. 13-246) deal with general aspects of microbiology. The following specialized chapters deal with the bacteriology of different foodstuffs as follows: grain and flour (pp. 247-

82); bread, confectionery and macaroni (pp. 283-302); yeast fermentation products (pp. 302-74); bacterial fermentation products (pp. 374-93); wine (pp. 393-412); sugar, starch and syrup (pp. 413-30); preserved fruit and vegetable products (pp. 431-94); milk (pp. 494-532); dairy products (pp. 532-610); meat (pp. 611-50); meat products and eggs (pp. 650-83); and fish products (pp. 684-729). The book contains diagrams and illustrations, but there is no subject index. SKK

225

[Resistance of micro-organisms to heat sterilization in preserved foods.]

Termoustoichivost mikroorganizmov i rozrabotka rezhimov sterilizacii konservov. [A book]

Anon.

95pp. (1968) [Ru] Moscow: CINTI-Pishcheprom
Price 39 k.

The heat resistance of micro-organisms is discussed, together with the methods of overcoming it. The fundamental parameters for determining sterilization effect are given with the appropriate calculations. Lab. checking of sterilization effect is described and operational experience of various methods of sterilization is mentioned. STI

226

[Food biochemistry.] Potravinarska biochemie. [A book]

Sicho, V.

424 pp. (1969) [Cs] Prague, Czechoslovakia:
'SNTL'. Price 31.20 Kcs

This publication, which has been approved as a university textbook for students of food chemistry and technology, discusses relations between environment and nature, composition of living objects, substrates and metabolites, biocatalysts and metabolism. STI

227

Microbiological problems in food preservation by irradiation. [Conference proceedings]
Food and Agriculture Organization of the United Nations; International Atomic Energy Agency
148pp. (1967) [Numerous ref. En] Vienna: Int.
Atomic Energy Agency. Price 21s. 6d. [Rome, Italy]

The proceedings of a panel organized by the Joint FAO/IAEA Division of Atomic Energy in Food and Agriculture and held in Vienna 27th June-1st July 1966, are reported. Papers include: 'The inactivation of infection and intoxication micro-organisms by irradiation in seafood', by D. J. Quinn, A. W. Anderson & J. P. Dyer (pp. 1-13, 9 ref.); 'The effect of ionizing radiation on *Clostridium botulinum* spores', by N. N. Masokhina-Proshnyakova & G. V. Ladukhina (pp. 27-35, 12 ref.); 'Toxin production by *Cl. botulinum*

type E in fish', by G. Hobbs (pp. 37-44, 21 ref.); 'Radiosensitivity of type E *botulinus* toxin and its protection by proteins, nucleic acids and some related substances', by T. Miura, S. Sakaguchi, G. Sakaguchi & K. Miyaki (pp. 45-54, 7 ref.);

'Radiation resistance of botulinum toxins', by T. A. Roberts (pp. 55-56, 5 ref.);

'Resistance of aflatoxin to chemical and biological changes by gamma irradiation', by K. Miyaki, K. Aibara & T. Miura (pp. 57-64, 2 ref.);

'The effects of additives on radiation resistance of *Cl. botulinum* in meat', by A. W. Anderson, D. A. Corlett, Jr. & K. L. Krabbenhoft

(pp. 87-97, 14 ref.); 'Combination treatment of spores of *Cl. botulinum* with heat plus radiation', by N. Grecz, J. Upadhyay, T. C. Tang & C. A. Lin (pp. 99-113, 13 ref.);

'Effects of heating and gamma radiation on the inhibition of bacterial spores by curing agents', by T. A. Roberts (pp. 115-21, 7 ref.);

'Reduction of radiation dose requirements of foods by additives', by J. Farkas, I. Kiss & E. Andrassy (pp. 123-31, 32 ref.);

'The effect of ionizing radiation and antioxidant treatment on the quality and storage life of vacuum-packed trout at 0°C', by P. Hansen & B. V. Jorgensen (pp. 133-38, 10 ref.). Summaries, conclusions and recommendations of the panel are listed at the end of the text. VJG

228

Canned foods: an introduction to their microbiology. [A book]

Hersom, A. C.; Hulland, E. D.

viii + 319pp. 6th edition (1969) [Numerous ref. En]
London: J. & A. Churchill Ltd. Price 45s. [Nestle Co. Ltd., St. George's House, Croydon, Surrey, England]

This extensively revised edition contains a new chapter on HTST processing which includes aseptic canning. The section on heat processing and processing evaluation has been partly rewritten, most of the original diagrams have been retained and a few replaced to illustrate the latest equipment. The following chapters are included: 'Bacteria' (pp. 1-15); 'True fungi' (pp. 16-26); 'Control of spoilage micro-organisms' (pp. 27-59); 'Containers' (pp. 60-73); 'Outline of canning

operations' (pp. 74-84); 'Sources and control of contamination' (pp. 85-101); 'Principal spoilage organisms in canned foods' (pp. 102-18); 'Effects of heat on micro-organisms' (pp. 119-51); 'HTST processing' (pp. 181-88); 'The use of ionising radiations for food preservation' (pp. 189-201); 'Types of spoilage' (pp. 202-15); 'Microbiology of sound canned foods' (pp. 216-31); 'Bacterial food-poisoning' (pp. 232-51); 'Laboratory examination of canned foods' (pp. 252-74); 'Examination of raw materials, plant and miscellaneous methods' (pp. 276-86); 'Examination of cans' (pp. 287-98). The following appendices are included: 'Temperature of saturated steam'; 'Lethal times and lethal rates for *Clostridium botulinum*'; 'Sizes of some common round open-top cans'; 'Example of calculation of process lethality'; 'Lethal rates' and 'Summary of causes and control of microbial spoilage of canned foods'. VJG

229

Evolutionary biochemistry of proteins. Homologous and analogous proteins from avian egg whites blood sera, milk, and other substances. [A book] Feeney, R. E.; Allison, R. G. viii + 290pp. (1969) [576 ref. En] New York: Wiley-Interscience. Price 131s [Coll. of Agric. and Environ. Sci., Univ., Davis, California, USA]

In this book the comparative and evolutionary relationships between blood plasma, milk and egg white proteins are described. General information is given on the composition, properties and food uses of hen egg white protein (pp. 24-57), and a comparison is made of the protein composition of the white of eggs of different avian species (pp. 58-91). A general description of milk proteins is given (pp. 93-116) under the subheadings of 'Composition', 'Properties of proteins', 'Lactotransferrins', 'Immunoglobulins', 'Colostrum proteolytic enzyme inhibitors', 'Biosynthesis', 'Comparative biochemistry', 'Action of rennin on milk', 'Immunology of milk', 'Presence of enzyme or enzyme inhibitors in milk' and 'Milk allergy'. The chapter on blood plasma proteins (pp. 117-43) includes a study of the relationships between milk, plasma and egg white proteins. Chapters on transferrins (pp. 144-71), muramidase (pp. 172-98) and inhibitors of proteolytic enzymes (pp. 199-244) are also included. SPT

230

Metabolism. [A book]

Altman, P. L.; Dittmer, D. S. (Editors) xix + 737pp. (1968) [Numerous ref. En] Bethesda, Maryland: Federation of American Societies of Experimental Biology (FASEB) Price \$ 20.00

This book includes chapters on the following: composition of milk (pp. 1-9); composition of foods, raw and processed: animal origin (pp. 9-25); composition of foods raw and processed: plant origin (pp. 25-47); composition of foods and feeds: animal and plant origin (pp. 47-52); and amino acid composition of foods: animal and plant origin (pp. 53-58). Appendices are included giving an alphabetical list of Latin names of plants and animals and corresponding common names and a similar list in alphabetical order of common names. SPT

231

Microorganisms in foods: their significance and methods of enumeration. [A book]

Thatcher, F. S.; Clark, D. S. (International Association of Microbiological Societies, International Committee on Microbiological Specifications for Foods) (Editors) xiii + 234pp. SBN 8020 15387 (1968) [Numerous ref. En] Toronto, Canada: University Press Price \$12.50; London, UK: Oxford University Press Price £6 [Div. of Microbiol., Res. Lab., Food and Drug Directorate, Dept. of Nat. Health and Welfare, Ottawa, Ontario, Canada]

This book represents part of the work done by the International Committee on Microbiological Specifications for foods during 1965-1967. Its aims are to describe occurrence and significance of particular organisms in foods; offer recommendations on methods for detection and enumeration of specific groups of food-borne microorganisms and detection of toxins causing food-poisoning and describe the composition and methods of preparation of the recommended media, and specify relevant tests. The book is divided into 3 parts: Part I, Pathogenic organisms in foods (pp. 1-45, numerous ref.), contains the following sections: Common food-poisoning bacteria, Indicator organisms, and The importance of detection; Part II, A selection of methods for the microbiological examination of foods (pp. 47-147, 98 ref.), contains the following: Principles and problems of selection, Sampling procedures, and Recommended methods for microbiological examinations; Part III, Specifications for media, reagents and ingredients (pp. 149-209, 44 ref.), contains: Specifications for ingredients for media and reagents, Specifications for media, and Specifications for diagnostic reagents. Appendices include recommendations on safety precautions in the microbiological laboratory, and there is a subject index. JA

232

Practical food microbiology and technology. [A book]

Weiser, H. H.; Mountney, G. J.; Gould, W. A. 2nd edition xii + 388pp. ISBN 0 87055 064 0 (1971) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc. Price \$12.00 (US) \$13.00 (Foreign)

An attempt has been made in this 2nd edition to bring the original manuscript up to date and to reorganize sections of the 1st edition (published in 1962). New tables, and the latest laboratory methods for isolating and culturing microorganisms of importance to the food industry, have been added. Chapters are: Food and man (pp. 1-8); Composition of foods (pp. 9-29, 16 ref.); Enzymes (pp. 30-51, 16 ref.); Morphology of microorganisms (pp. 52-68, 8 ref.); Factors that influence microbial activity (pp. 69-77, 9 ref.); Role of temperature in microbial activity on foods (pp. 78-91, 9 ref.); Microbiology of foods at low temperatures (pp. 92-117, 47 ref.); Inherent and biological acidity in foods (pp. 118-157, 14 ref.); Microbiology of eggs and egg products (pp. 158-175, 23 ref.); Microbiology of meats (pp. 176-196, 23 ref.); Microbiology of fruits and vegetables (pp. 197-210, 30 ref.); Microbiology of flour, bread, and cereal (pp. 211-216, 7 ref.); Microbiology of spices (pp. 217-223, 15 ref.); Food spoilage (pp. 224-242, 29 ref.); Sugar and salt in food preservation (pp. 243-254, 30 ref.); Organic and inorganic acids and alkalies in food preservation (pp. 255-268, 25 ref.); Radiation in food preservation (pp. 269-282, 13 ref.); Antibiotics in the food industry (pp. 283-298, 24 ref.); Food additives (pp. 299-309, 27 ref.); Food

poisoning (pp. 310-331, 14 ref.); and Microbiology of water (pp. 332-351, 7 ref.). An appendix (pp. 352-382) details methods for the bacteriological examination of foods. A subject index is included. JA

233

[Microbiological analysis in food industry.]

Analiza mikrobiologiczna w przemyśle spożywczym. [A book]

Kosewska, L.

253pp. (1970) [Pl] Warsaw, Poland: Państwowe Wydawnictwo Szkolnictwa Zawodowego. Price 15 zł

This book contains general information on microbiological methods used for raw materials in the food industry, and on microbiology of food processing and finished products. The main chapters deal with: washing and preparation of glass for microbiological studies; analytical methods in microbiology; preparation of dyes and media for microbiological studies; determination of air contamination; microbiological analysis of water; analysis of bakers' yeasts; microorganisms in dairy products; study of edible fats; microbiological studies of meat and meat products; microbiology of canned meat, canned fish products and canned fruit and vegetable products; determination of the degree of contamination of packaging materials; and description of laboratory methods. STI

234

Microbiology of foods and food processing. [A book]

Nickerson, J. T.; Sinskey, A. J.

x + 306pp. ISBN 0 444 00124 7 (1972)

[Numerous ref. En] New York, USA: American Elsevier Publishing Co. Inc. [Dept. of Nutr. & Food Sci., Massachusetts Inst. of Tech., Cambridge, USA]

This comprehensive book, which will be of interest to food manufacturers, caterers and students of food science, hotel management and home science, is aimed at providing an understanding of pertinent information concerning the microbiology of foods, food processing and food-borne diseases. Because of the wide area of subject matter covered, material which is interesting but not absolutely essential to the understanding of the various subjects has not been included. It contains general chapters, each with its

235

[Biological characteristics of some strains of lactic acid bacteria.] A book bakterii. [A book]

Erzinkyan, L. A.

234pp. (1971) [470 ref. Ru] Erevan, USSR: Izdatel'stvo Akademii Nauk Armyanskoi SSR. Price 1.64 rouble

The book deals with the following problems: fermented milk products and their use; composition and microorganisms of milk; microflora and

chemical composition of matsun; methods of phenol determination in milk and dairy products; phenol resistance of lactic acid bacteria and yeasts; antimicrobial properties of lactic acid bacteria; interaction of lactic acid bacteria and azotobacteria; use of acidophilous milk and matsun; and manufacture of medicinal acidophilous milk. STI

236

Microbiology of food fermentations. [A book]

Pederson, C. S.

vi + 283pp. ISBN 0 8705 104 3 (1971) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc. Price \$18.00 (US) \$19.00 (Foreign) [Dept. of Bact., Cornell Univ., Geneva, New York, USA]

The purpose of this book is to illustrate the role of certain bacteria, yeasts and moulds in the production of a large selection of foods. Chapters are: Fermented foods of the world (pp. 1-11, 7 ref.); Microorganisms of fermented foods (pp. 12-35, 8 ref.); Chemical alterations during fermentation (pp. 36-44, 11 ref.); Growth of microorganisms in foods (pp. 45-65, 11 ref.); fermented milk products (pp. 66-107, 19 ref.); Fermented vegetables products (pp. 108-152, 56 ref.); Fermented sausage (pp. 153-172, 19 ref.); Some cereal foods (pp. 173-198, 20 ref.); alcoholic beverages (pp. 199-230, 23 ref.); Nutritious fermented foods of the Orient (pp. 231-246, 22 ref.); Coffee, cacao, vanilla, tea, citron, ginger (pp. 247-259, 25 ref.); Organic acids (pp. 260-268, 9 ref.); Microbial products consumed in foods (pp. 269-274, 9 ref.); and Food fermentation as an approach to world feeding problems (pp. 275-276). A 7-pp. subject index is included. JA

237

Biochemical and industrial aspects of fermentation. [A book]

Sakaguchi, K.; Uemura, T.; Kinoshita, S. (Editors)

356pp. (1971) [Numerous ref. En] Tokyo, Japan: Kodansha Ltd. Price US \$19.50 Japan 6000 Yen

This book, comprised of articles by leading Japanese workers, gives an overall picture of current applied microbiology in Japan. The articles include: Metabolic control in the modern fermentation industry, by S. Kinoshita (pp. 9-35, 49 ref.); Industrial production of nucleotides, nucleosides and related substances, by K. Ogata (pp. 37-59, 43 ref.); Petroleum microbiology and vitamin production, by K. Yamada, T. Nakahara and S. Fukui (pp. 61-90, 82 ref.); Industrial production of enzymes, by J. Fukumoto and S. Shichiji (pp. 91-117, 22 ref.); Antibiotics and other related microbial products, by H. Umezawa (pp. 119-153, 40 ref.); Gibberellins and other biologically active substances produced by microorganisms, by S. Tamura (pp. 155-173, 88

ref.); Alkaloid and steroid production by microorganisms, by M. Abe and H. Iizuka (pp. 175-200, 46 ref.); The classification and biochemistry of acetic acid bacteria, by T. Asai (pp. 201-232, 87 ref.); Phage contamination and control in the fermentation industry, by M. Hongo (pp. 233-265, 56 ref.); Automatic process control of continuous fermentation, by S. Shichiji (pp. 267-296, 34 ref.); Purification of industrial wastes by microbial methods, by H. Ono, Y. Kaneko, M. Ito and K. Tonomura (pp. 297-328, 23 ref.); Bacterial leaching in the mining industry, by K. Imai (pp. 329-336, 14 ref.); and Fermentation in the rumen, by T. Suto and T. Uemura (pp. 337-356, 23 ref.). JN

238

Microbiology and food. [A book]

Ford, B. J. vii + 212pp. (1970) [En] London, UK: Northwood Publications Ltd. Price £2.10 (Hardback) £1.75 (Paperback)

This well illustrated book attempts to integrate the subjects of microbiology and foodstuffs. It contains chapters on: The cell's nutritional needs (pp. 1-33); The cell as food (including the effects of cooking on animal and plant tissues and on prepared foods) (pp. 34-47); The nature of organisms (viruses, bacteria, culture techniques, identification of bacteria, fungi, protozoa, parasitic worms, insect pests and parasites, vertebrate pests) (pp. 48-102); Organisms and their products in the service of mankind (including brief mention of fungi as food, bread baking, brewing of beer, production of wines, vinegar, yoghurt, cheese, fermented plants and vegetables) (pp. 103-116); Damage to foodstuffs (including spoilage, food poisoning mechanisms, contamination in practice) (pp. 117-165); and Control (pp. 166-195). Appendices are included on food values of representative animal foodstuffs and food consumption in UK. AL

239

[Microbiology of foods. Microbiological methods for studying food products.]

Mikrobiologia żywności. Mikrobiologiczne metody badania produktów żywnościowych. [Book] Burbianka, M.; Pliszka, A.; Janczura, E.; Teisseyre, T.; Zaleska, H. 491pp. (1971) [many ref. Pl] Warsaw, Poland Państwowy Zakład Wydawnictw Lekarskich. Price 90 zł

The book includes the following chapters: general knowledge of microbiology (pp. 11-33); study of individual groups of microorganisms (pp. 34-212); study of individual food products (pp. 213-336); bacteriological control in industrial food plants and communal feeding enterprises (pp. 337-388); growth media used in food testing (pp. 389-481). STI

240

Methods in microbiology. Vol. 1 [A book]

Norris, J. R.; Ribbons, D. W. (Editors) xiv + 712pp. (1969) [Numerous ref. En] London: Academic Press. Price 170s

The series entitled 'Methods in microbiology', of which this is the first volume, is intended to provide a comprehensive reference source of technical methods used in microbiological research, and is aimed at advanced students and research workers. Sufficient practical detail is provided to eliminate the need for searching original literature. A certain amount of theoretical background has been included as a context for technical details. Chapters are: Sources, handling and storage of media and equipment, by E. C. Elliott & D. L. Georgala (pp. 1-20, 2 ref.); Properties of materials suitable for the cultivation and handling of microorganisms, by R. Brookes (pp. 21-75, 82 ref.); Methods and equipment for sterilization of laboratory apparatus and media, by G. Sykes (pp. 77-121, 57 ref.); Treatment of process air for deep culture, by R. Elsworth (pp. 123-36, 16 ref.); Principles and applications of laminar-flow devices, by J. J. McDade, G. B. Phillips, H. D. Sivinski & W. J. Whitfield (pp. 137-68, 72 ref.); Safety in the microbiological laboratory, by H. M. Darlow (pp. 169-204, 44 ref.); Membrane filter techniques in microbiology, by J. G. Mulvany (pp. 205-53, 22 ref.); The culture of microorganisms in liquid medium, by C. T. Calam (pp. 255-326, 90 ref.); Methods for studying the microbial division cycle, by C. E. Helmstetter (pp. 327-63, 133 ref.); Methods of microculture, by L. B. Quesnel (pp. 365-425, 123 ref.); Solid and solidified growth media in microbiology, by R. C. Codner (pp. 427-54, 95 ref.); The isolation and cultivation of single organisms, by K. L. Johnstone (pp. 455-71, 12 ref.); Design of laboratory fermenters, by N. Blakebrough (pp. 473-504, 57 ref.); The deep

culture of bacteriophage, by K. Sargeant (pp. 505-20, 26 ref.); Evaluation of growth by physical and chemical means, by M. F. Mallette (pp. 521-66, numerous ref.); The evaluation of mycelial growth, by C. T. Calam (pp. 567-91, 19 ref.); Counting and sizing micro-organisms with the Coulter counter, by H. E. Kubitschek (pp. 593-610, 12 ref.); Viable counts and viability, by J. R. Postgate (pp. 611-28, 7 ref.); Determination of significance of molar growth yields, by A. H. Stouthammer (pp. 629-63, 102 ref.) JA

241

Methods in microbiology. [A book]

Norris, J. R.; Ribbons, D. W. (Editors) Vol. 2, xi + 432pp.; Vol. 3A, xi + 505pp; Vol. 3B, vii + 369pp. (1970) [Numerous ref. En] London: Academic Press. Price 115s. + 140s. + 100s.

Vol. 2 of this series is concerned with the measurement and control of the growth of microorganisms and theoretical and practical aspects of their continuous culture. Vol. 3A deals with culture media (including their design),

maintenance and preservation of bacterial cultures, culture collections, enrichment techniques, isolation of mutants and improvement of micro-organisms by mutation, hybridization and selection. Vol. 3B covers

specialized techniques for the isolation, cultivation and maintenance of autotrophs, phototrophs, anaerobes (spore-forming and Gram-negative non-sporing), psychrophiles, thermophiles, halophiles, myxobacteria, mycoplasmas, rumen bacteria, blue-green and other algae and concludes with a chapter on bacteriophages. [See FSTA (1970) 2 4B27 for Vol. 1.] BEPC

242

Methods in microbiology. Vol. 5A. [A book] Norris, J. R.; Ribbons, D. W. (Editors) xiii + 450pp. ISBN 0 12 521505 3 (1971) [Numerous ref. En] London, UK: Academic Press. Price £7.75

This volume of the series is concerned with the direct observation of whole cells or organelles and contains chapters connected with direct microscopic methods, antigen/antibody studies, toxin/antitoxin assays, techniques used in handling experimental animals, detn. and hybridization of microbial RNA and DNA, and cell wall preparation and examination. The disintegration and chemical analysis of cells, and techniques used to separate and characterize their components, are dealt with in Volume 5B. CDA

243

Methods in microbiology. Volume 6A. [A book] Norris, J. R.; Ribbons, D. W. (Editors) xiv + 593pp. ISBN 0 12 512506 1 (1971) [Numerous ref. En] London, UK: Academic Press. Price £9.00

This volume of the series deals with chemical and enzymological aspects of the application of biochemical techniques to the study of microorganisms. It covers the use of biochemical and enzymic tests for characterizing microbial types, quantitative separation and analysis of fermentation products, methods for elucidating metabolic pathways and the control of enzyme synthesis, the use of antimetabolites to study biosynthesis, and the use of electron transport inhibitors. [See also FSTA (1972) 4 2B16.] CDA

244

Methods in microbiology. Volume 6B. [A book] Norris, J. R.; Ribbons, D. W. xiv + 385pp. ISBN 0 12 521546 0 (1972) [Numerous ref. En] London, UK: Academic Press. Price £7.00

In this half of volume 6, radiotracer techniques are described in 5 chapters, and other chapters deal

with respiratory measurements using dyes and electrodes, N fixation, calorimetry and electrochemical measurements. [See FSTA (1972) 4 4B34 for volume 6A.] CDA

245

Methods in microbiology. Vol. 7B. [Book] Norris, J. R.; Ribbons, D. W. (Parker, M. T.; Hopwood, D. A.; Meyrath, J.; Suchanek, G.; Spooner, D. F.; Sykes, G.; Quesnel, L. B.) (Editors) xv + 388pp. ISBN 0 12 521547 9 (1972) [many ref. En] London, UK, Academic Press Inc. (London) Ltd. Price £7.00 [Borden Microbiol. Lab., Shell Res. Ltd., Sittingbourne, Kent, UK]

This volume, which completes the initial series of 'Methods in Microbiology', is a miscellany of disconnected topics which have fallen outside those covered in the previous volumes. The information is arranged under the following chapter headings: Phage-typing of *Staphylococcus aureus*, by M. T. Parker (pp. 1-28, 51 ref.); Genetic analysis in microorganisms, by D. A. Hopwood (pp. 29-158, many ref.); Inoculation techniques - effects due to quality and quantity of inoculum, by J. Meyrath & G. Suchanek (pp. 159-209, many ref.); Laboratory assessment of antibacterial activity, by D. F. Spooner & G. Sykes (pp. 211-276, many ref.); Photomicrography and macrophotography, by L. B. Quesnel (pp. 277-358, 26 ref.). [See FSTA 1972 4 6B62 for Vol. 6B.] VJG

YEASTS

246

Aspects of yeast metabolism. [A book] Mills, A. K. (Arthur Guinness Son and Co. (Dublin) Ltd.) (Editor) xiv + 345pp. (1968) [Numerous ref. En] Oxford and Edinburgh: Blackwell Scientific Publications Price 77s 6d [Arthur Guinness Son and Co. (Dublin) Ltd., Dublin, R. of Ireland]

The following papers read at the Guinness Symposium, held at the research laboratory St. James' Gate, Dublin are presented together with discussions: 'The structure and function of the yeast cell' by H. Suomalainen (pp. 1-31); 'Transport of monosaccharides in yeast cells and its relationship to cell metabolism' by A. Kleinzeller & A. Kotyk (pp. 33-45); 'Regulation of carbohydrate transport and metabolism in yeast' by A. Sols (pp. 47-70); 'Comparative studies of aldolases and fructose diphosphatases' by B. L. Horecker et al. (pp. 71-105); 'Protein biosynthesis in yeast' by H. O. Halvorson & C. Heredia (pp. 107-32); 'On negative Pasteur effects in yeasts' by T. O. Wiken (pp. 133-54); 'Biochemistry of adaptation in yeast' by H. Holzer (pp. 155-95); 'Alterations in the respiratory enzymes of the mitochondria of growing

and resting yeast' by M. F. Utter, E. A. Duell & C. Bernofsky (pp. 197-215); 'The effect of chloramphenicol on the differentiation of the mitochondrial organelle' by A. W. Linnane et al. (pp. 217-45); 'Biochemical correlates of respiratory deficiency. V. Mitochondrial DNA and macromolecular synthesis' by H. R. Mahler, K. K. Tewari and J. Jayaraman (pp. 247-70); 'The fatty acid synthetase from yeast' by F. Lynen (pp. 271-302); 'Phospholipids of yeasts' by R. Letters (pp. 303-25); 'Oxygen, the creator of differentiation' by O. Warburg, A. W. Geissler and S. Lorenz (pp. 327-336). AB

247

[Progress of technical microbiology. Yeasts and their metabolites.] Uspekhi tekhnicheskoi mikrobiologii. Drozhzhi i ikh matabolity. [A book] Anon. 138pp. (1968) [Ru] Minski: Nauka i tekhnika Price 73 k.

This collection of 14 short scientific reports on new research work in technical microbiology is intended for specialists. The reports consider micro-organisms as sources of carotenoids, increasing the physiological activity of pressed bakers yeast by sonic treatment, utilization of sphagnum peat for production of feeding yeasts and peat preparations enriched with proteins. STI

248

The yeasts. Vol. I. Biology of yeasts. [A book] Rose, A. H.; Harrison, J. S. (Kreger-van Rij, N. J. W.; Carmo-Sousa, L. do; Gentles, J. C.; Touch, C. J. la; Last, F. T.; Price, D.; Matile, P.; Moor, H.; Robinow, C. F.; Fowell, R. R.; Mortimer, R. K.; Hawthorne, D. C.) (Editors) xiv + 508pp. SBN 12-596401-3 (1969) [Numerous ref. En] London, UK: Academic Press Inc. Price 140s [School of Biol. Sci., Univ., Claverton Down, Bath, UK]

This 1st of a series of 3 volumes deals with the biology of yeasts and will be of interest to microbiologists, biochemists, cytologists, food scientists, brewery and distillery research workers, biochemical engineers and public health workers. Each volume is complete in itself and together they present a thorough account of the present knowledge on yeasts and their activities. Chapters are: Introduction, by A. H. Rose & J. S. Harrison (pp. 1-4, 18 ref.); Taxonomy and systematics of yeasts, by N. J. W. Kreger-van Rij (pp. 5-78, numerous ref.); Distribution of yeasts in nature, by L. do Carmo-Sousa (pp. 79-105, numerous ref.); Yeasts as human and animal pathogens (covering *Candida*, *Cryptococcus neoformans*, *Torulopsis*, *Pityrosporum*, *Trichosporon* and *Rhodotorula*), by J. C. Gentles & C. J. la Touche (pp. 107-82, numerous ref.); Yeasts associated with enviroins, by F. T. Last & D. Price (pp. numerous ref.); Yeast cytology, by P. Matile, H. Moor & C. F. Robinow (pp. 219-302, numerous ref.); Sporulation and hybridization of yeasts, by R. R.

Fowell (pp. 303-83, numerous ref.); Yeast genetics, by R. K. Mortimer & D. C. Hawthorne (pp. 385-460, numerous ref.); and Life cycles in yeasts, by R. R. Fowell (pp. 461-71, 45 ref.). Subject and author indices are included. JA

249

The yeasts. Vol. II. Physiology and biochemistry of yeasts. [A book] Rose, A. H.; Harrison, J. S. (Editors) xi + 571pp. SBN 2 596402 1 (1971) [Numerous ref. En] London, UK: Academic Press Inc. (London) Ltd. Price £8.50 [School of Biol. Sci., Univ., Claverton Down, Bath, UK]

This book, together with volumes I and III [see FSTA (1971) 3 2B11 & 2B12], presents an up-to-date account of knowledge on yeasts and their activities. Chapters are: Introduction, by A. H. Rose & J. S. Harrison (pp. 1-2); Yeast nutrition and solute uptake, by H. Suomalainen & E. Oura (pp. 3-74, numerous ref.); Kinetics and energetics of yeast growth, by N. van Uden (pp. 75-118, 91 ref.); Influence of temperature on the growth and metabolism of yeasts, by J. L. Stokes (pp. 119-134, 65 ref.); Structure and biosynthesis of the yeast cell envelope, by H. J. Phaff (pp. 135-210, numerous ref.); Yeast lipids and membranes, by K. Hunter & A. H. Rose (pp. 211-270, numerous ref.); Energy-yielding metabolism in yeasts, by A. Sols, C. Gancedo & G. DelaFuente (pp. 271-307, numerous ref.); The properties and composition of yeast nucleic acids, by J.-C. Mounoulou (pp. 309-333, numerous ref.); Nucleic and protein synthesis in yeasts: regulation of synthesis and activity, by H. de Robichon-Szulmajster & Y. Surdin-Kerjan (pp. 335-418, numerous ref.); The structure and biosynthesis of storage carbohydrates in yeasts, by D. J. Manners (pp. 419-439, 73 ref.); Biochemistry of morphogenesis in yeasts, by S. Bartnicki-Garcia & I. McMurrough (pp. 441-491, numerous ref.); and Carotenoid pigments of yeasts, by K. L. Simpson, C. O. Chichester & H. J. Phaff (pp. 493-515, numerous ref.). Author and subject indices are included. JA

250

The yeasts. Vol. III. Yeast technology. [A book] Rose, A. H.; Harrison, J. S. (Editors) xiv + 590pp. SBN 12-596403-X (1970) [Numerous ref. En] London, UK: Academic Press Inc. Price 150s

[See preceding abstr.]. Chapter in this 3rd volume are: Introduction, by J. S. Harrison & A. H. Rose (pp. 1-4); Yeasts in wine-making, by R. E. Kunkee & M. A. Amerine (pp. 5-71); The role of yeasts in cider-making, by F. W. Beech & R. R. Davenport (pp. 73-146); Brewer's yeasts, by C. Rainbow (pp. 147-224); Sake yeast, by K. Kodama (pp. 225-82); Yeasts in distillery practice, by J. S. Harrison & J. C. J. Graham (pp. 349-420); Food yeasts, by H. J. Peppel

21-62); Yeasts as spoilage organisms (covering syrups, confectionery products, fruits, fish, poultry, red meats, dairy products, fermented foods, fruit juices, fruit drinks, carbonated beverages, alcoholic beverages, malt extract, salad dressing, catsup, soy sauce, miso paste, frozen foods and stored grains), by H. W. Walker & J. C. Ayres (pp. 463-527); and Miscellaneous products from yeast, by J. S. Harrison (pp. 529-45). Subject and author indices are included. JA

251

[Microbiology of yeast production.] Mikrobiologiya drozh zhevogo proizvodstva. [A book] Semikhatova, N. M.; Malygina, M. V. 151pp. (1970) [29 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.40 rouble

This paper-back book, intended for technicians in the food industry, particularly the bakery industry, contains the following chapters: Yeasts and their biological characteristics (pp. 5-48); Growth and multiplication of yeasts (pp. 48-68); Bacteria (pp. 68-85); moulds (pp. 86-96); Effect of environmental factors on yeasts and bacteria (pp. 97-102); Contaminant microflora in yeast production (pp. 102-34); and Combatting of contaminant microflora in yeast production (pp. 134-41). An 8-pp. appendix gives keys to the identification of various yeasts. HBr

ENZYMES

252

[Enzymes.] Fermenti. [Book]

Tsyperovich, A. C. 358pp. (1971) [Numerous ref. Ru] Kiev, USSR: Izdatel'stvo "Tekhnika". Price 2.52 r.

This book is intended for specialist workers in the food industry, medicine and pharmaceuticals. The main chapters deal with: properties of enzymes; production of enzymes; use of enzymes; their application in individual branches of industry; and future of enzymatic catalysis. STI

253

Principles of enzymology for the food sciences. [Book]

Whitaker, J. R. xiv + 636pp. ISBN 0 8247 1780 5 (1972) [many ref. En] New York 10016, USA, Marcel Dekker, Inc. Price \$26.50 [Dept. of Food Sci. and Tech., Univ., Davis, California]

This book, for undergraduate and graduate students of food science, covers the subject under the headings: Introduction (pp. 1-30, 38 ref.);

Protein nature of enzymes (pp. 31-64, 20 ref.); Enzyme purification (pp. 65-121, 35 ref.); Active sites and factors responsible for enzyme catalysis (pp. 123-150, 14 ref.); Rates of reactions (pp. 151-173); Effect of substrate concentration on rates of enzyme-catalyzed reactions, (pp. 175-210, 22 ref.); Enzyme concentration and its effect on rate of enzyme-catalyzed reactions (pp. 211-231, 12 ref.); Kinetic consequences of enzyme inhibition (pp. 233-253, 6 ref.); Enzyme inhibitors (pp. 255-286, 32 ref.); Effect of pH on rates of enzyme-catalyzed reactions (pp. 287-317, 11 ref.); Effect of temperature on enzyme-catalyzed reactions (pp. 319-349, 9 ref.); Ordinary and limited proteolysis (pp. 351-367, 9 ref.); Enzyme cofactors (pp. 369-408, 14 ref.); Classification and nomenclature of enzymes (pp. 409-427, 5 ref.); The glycoside hydrolases (pp. 433-467, 23 ref.); Pectic enzymes (pp. 469-479, 7 ref.); The esterases (pp. 481-501, 18 ref.); Enzymes involved in degradation of nucleic acids (pp. 503-510); The proteolytic enzymes (pp. 511-543, 19 ref.); Lactate dehydrogenase (pp. 549-559, 17 ref.); Glucose oxidase (pp. 561-570, 5 ref.); Polyphenol oxidase (pp. 571-582, 12 ref.); Xanthine oxidase (pp. 583-590, 5 ref.); Catalase and peroxidase (pp. 591-605, 8 ref.); and Lipoxigenase (lipoxidase) (pp. 607-617, 12 ref.). A 17-pp. subject index is included. JN

254

Enzyme engineering. [Book]

Wingard, L. B., Jr. (Editor) xiii + 415pp. ISBN 0 471 95425 X (1972) [many ref. En] New York, USA; London, UK, Interscience Publishers, John Wiley & Sons. Price £5.45 [Univ. of Pittsburgh, Pennsylvania, USA]

This book constitutes Biotechnology and Bioengineering Symposium No. 3 and consists of papers from the Engineering Foundation Conference on 'Enzyme Engineering' held from August 9-13, 1971 at Henniker, New Hampshire, and from the 64th Annual Meeting of the American Institute of Chemical Engineers held on Dec. 1, 1971 in San Francisco, California. Contributions are in the sections: Introduction; Microbial sources of enzymes; Isolation and purification of enzymes; Immobilization of enzymes; Kinetics and performance of enzyme reactions; Applications and future directions of enzyme engineering. 1-p. author and subject indexes are included. JN

255

[Enzymes in medicine, the food industry and agriculture.] Fermenty v meditsine, pishchevoi promyshlennosti sel'skom khozyaistve. [A book] Gulyi, M. F. (Editor) 252pp. (1968) [Ru] Kiev, USSR: Izdatel'stvo 'Naukova Dumka'. Price 1.50 Roubles

This book presents the proceedings of the 1st Republican Conference in the Ukraine on enzyme problems under the aegis of the Ukrainian Acad. of Sci. and contains articles by different authors (59 on enzymes in medicine, 49 on enzymes in the food industry, and 11 on enzymes in agriculture). SKK

256

Enzyme handbook. Vol. I & II. [A book]
Barman, T. E.

xi + 499pp.; iii + 429pp. (1969) [Numerous ref. En]
Berlin, Heidelberg, New York: Springer-Verlag.
Price \$19.50 [Nat. Inst. for Res. in Dairying,
Shinfield, Reading, England]

The object of the handbook is to provide, in a concise form, molecular data on enzymes. The enzymes are listed according to the Enzyme Commission list. ~800 enzymes are recorded, of which 110 were discovered after completion of the 1965 Enzyme Commission list. These have been given numbers and systematic names in line with Enzyme Commission rules. The following details, where available, are given for each enzyme: equilibrium constant, mol. wt., specific activity, specificity, Michaelis constants, and inhibitors. Light absorption properties of substrates and products are given where appropriate. JA

257

Enzymological aspects of food irradiation. [A book]

Food and Agriculture Organization of the United Nations; International Atomic Energy Agency
110pp. (1969) [Numerous ref. En] Vienna, Austria:
Int. Atomic Energy Agency. Price 33s. 4d. [Rome, Italy]

The proceedings of a panel on enzymological aspects of application of ionizing radiation to food preservation, organized by the Joint FAO/IAEA Division of Atomic Energy in Food and Agriculture, held in Vienna on 8-12 April 1968, are reported. The following 10 papers presented at the meeting are reproduced: 'Effect of gamma irradiation on actomyosin solutions', by R. Coelho (pp. 1-14, 20 ref.); 'Inactivation of hydrolases in vitro and in situ by ^{60}Co gamma rays', by G. Giovannozzi-Sermanni, G. Di Marco & U. Tomati (pp. 15-21, 6 ref.); 'Fundamental aspects of enzyme inactivation by ionizing radiation', by T. Sanner & A. Pihl (pp. 23-36, 42 ref.); 'Preliminary studies on the nature of radiation inactivation of pectin methyl esterase and cellulase preparations', by K. Vas (pp. 37-45, 7 ref.); 'Radiation processing and the activity of enzymes of importance in the deterioration of foods of animal origin', by D. N. Rhodes (pp. 49-62, 39 ref.); 'Some experiments on the radiosensitivity of proteolytic enzymes of Fish tissues', by G. Siebert & K. Musch (pp. 63-69, 8 ref.); 'Some changes in enzymatic activities of citrus peel tissues after fruit

irradiation', by S. P. Monselise, J. Riov & R. S. Kahan (pp. 71-81, 18 ref.); 'Changes in enzyme activity and protein solubility during storage after radiation treatment', by G. Glew (pp. 83-90, 26 ref.); 'Enzymatic stabilization of radiated meats', by R. F. Cain & A. F. Anglemier (pp. 91-101, 20 ref.). Summaries, conclusions and recommendations of the panel are included. VJG

258

The enzymes. Hydrolysis: peptide bonds. Vol. 3. [A book]

Boyer, P. D. (Editor)

3rd edition xx + 886pp. (1970) [En] New York, USA:
Academic Press. Price a15.40

Vol. 3 gives information at the molecular level about catalysis of peptide bond hydrolysis (the enzymes themselves and the reactions), presenting X-ray and primary sequence results. Enzymes include: Carboxypeptidase A, by J. A. Harsuck & W. N. Lipscomb (pp. 1-56, 135 ref.); Carboxypeptidase B, by J. E. Folk (pp. 57-79, 71 ref.); Pepsin, by J. S. Fruton (pp. 119-164, 269 ref.); Chymotrypsinogen: X-ray structure, by J. Kraut (pp. 165-183, 29 ref.); The structure of chymotrypsin, by D. M. Blow (pp. 185-212, 126 ref.); Chymotrypsin - chemical properties and catalysis, by G. P. Hess (pp. 213-248, 148 ref.); Trypsin, by B. Keil (pp. 249-275, 212 ref.); Protein proteinase inhibitors - molecular aspects, by M. Laskowski, Jr. & R. W. Seestock (pp. 375-473, 287 ref.); Papain and other plant sulphhydryl proteolytic enzymes, by A. N. Glazer & E. L. Smith (pp. 501-546, 28 ref.); Subtilisins: primary structure, chemical and physical properties, by F. S. Markland, Jr. & E. L. Smith (pp. 561-608, 156 ref.); Other bacterial, mould and yeast proteases, by H. Matsubara & J. Feder (pp. 721-795, 331 ref.). DMK

259

The enzymes. Structure and control. Vol. 1. [A book]

Boyer, P. D. (Editor)

3rd edition. xvi + 559pp. (1970) [En] New York, USA:
Academic Press. Price a9.10

General aspects of enzymology are comprehensively reviewed, involving: structure and control; X-ray crystallography, by D. Eisenberg (pp. 1-89, with tables of properties of β -lactoglobulin and other proteins, 228 ref.); Multienzyme complexes, by L. J. Reed & D. J. Cox (pp. 213-240, 104 ref.); Genetic probes of enzyme structure, by M. J. Schlesinger (pp. 241-266, 98 ref.); Evolution of enzymes, by E. L. Smith (pp. 267-339, 243 ref.); Mechanisms of enzyme regulation in metabolism, by E. R. Stadtman (pp. 398-459, 277 ref.); Enzymes as control elements in metabolic regulation, by D. E. Atkinson (pp. 461-489, 42 ref.). DMK

260

The enzymes. Kinetics and mechanism. Vol. 2. [A book]

Boyer, P. D. (Editor)
3rd edition. xv + 584pp. (1970) [En] New York, USA:
Academic Press. Price £10.75

Vol. 2 includes: Rapid reactions and transient states, by G. G. Hammes & P. R. Schimmel (pp. 67-114, 84 ref.); Proximity effects and enzyme catalysis, by T. C. Bruice (pp. 217-279, 236 ref.); Schiff base intermediates in enzyme catalysis, by E. E. Snell & S. J. di Mari (pp. 335-370, 181 ref.); Some physical probes of enzyme structure in solution, by S. N. Timasheff (pp. 371-443, 234 ref.); Metals in enzyme catalysis, by A. S. Mikkvam (pp. 446-536, 291 ref.). DMK

outlines for lectures and the prevention of food poisoning abroad. JA

263

Introduction to industrial sterilization. [A book]
Richards, J. W.
vii + 183pp. (1968) [Numerous ref. En] London and New York: Academic Press Price 50s

This introductory text outlines the fundamental concepts and principles involved in the practically important methods of sterilization used in the fermentation and pharmaceutical industries. Chapters include: 'Meaning and purpose of sterilization' (pp. 1-11); 'Sterilization kinetics' (pp. 12-32); 'Sterilization of air and other gases' (pp. 33-50); 'Design and testing of fibrous air filters' (pp. 51-66); 'Thermal stabilization of liquids' (pp. 67-75); 'Sterilization of fermenter mash' (pp. 76-92); 'Design of heat sterilization cycles' (pp. 93-106); 'Design and operation of aseptic fermenters' (pp. 107-22); 'Sterilizing autoclaves' (pp. 123-32); 'Laboratories and sterile rooms' (pp. 133-37); 'Sterile filtration of liquids' (pp. 138-44); 'Radiation sterilization' (pp. 145-56); 'Chemical disinfection and detergency' (pp. 157-63); 'Sterilization and disinfection by gases' (pp. 164-72). JN

264

Industrial hygiene and toxicology. II.
Toxicology. [A book]

Patty, F. A.
2nd edition xxxi + pp.831-2377 (1963) [Numerous ref. En] New York, London & Sydney: Interscience Publishers.

This revised edition gives uses, source, manufacture, physical and chemical properties, analysis, physiological properties and permissible exposures of the most important elements and chemicals used in industry. An excellent 70pp. subject index is included. JN

265

Technical manual No. 1. Post-process sanitation in canneries. [A book]

Thorpe, R. H.; Everton, J. R. (United Kingdom, Fruit and Vegetable Preservation Research Association)
vi + 187pp. (1968) [28 ref. En] Chipping Campden, Gloucestershire, England: FVPRA

Information relevant to post-process can-handling hygiene and practical recommendations whereby the necessary standards may be attained are given. Salient facts and recommendations are presented in summary form in chapter 2 (pp. 6-26). Subjects dealt with are: 'Post-process sanitation programmes - objectives and organization' (pp. 27-37); 'Post-process sanitation measures - bacteriological standards' pp. 38-41); 'Recommendations for the

HYGIENE AND SANITATION

261

The safety of foods. [A book]

Ayres, J. C.; Blood, F. R.; Chichester, C. O.; Graham, H. D.; McCutcheon, R. S.; Powers, J. J.; Schweigert, B. S.; Stevens, A. D.; Zweig, G. (Editor)
367 pp. (1968) [Numerous ref. En, es] Westport, Connecticut: AVI Publishing Co. Inc. \$ 160.0 [Univ. Puerto Rico, Mayagüez, Puerto Rico]

This book is a compilation of the papers contributed by 43 leading food scientists to the "International Symposium on the Safety and Importance of Foods in the Western Hemisphere", organized by the Toxicology Study Section, US Public Health Service. The book is divided into 7 sections dealing with the introduction to the conference, food regulations in the Americas, food toxicants, microbial toxins, food spoilage and food-borne infections, adequate food supply and unintentional food additives. The book also considers the world food supply with special reference to the Western Hemisphere. BSG

262

Food poisoning and food hygiene. [A book]

Hobbs, B. C.
252 pp. (1968) [En] London: Edward Arnold (Publ.) Ltd. Price 50s [Central Public Health Lab., London, England]

This 2nd edition is divided into 2 parts. The 1st, dealing with food-poisoning and food-borne infection, contains chapters on elementary bacteriology, bacterial causes of food poisoning, reservoirs of infection and ways of spread, the vehicle of infection, examples of outbreaks of food poisoning and food-borne infection. The 2nd part is concerned with food hygiene in the prevention of food poisoning and contains the following chapters: personal hygiene of the food handler, storage and preparation and retail shops, cleaning methods and education. 3 chapters on kitchen design and equipment, control of infestation and legislation are contributed by L. Kluth. 2 appendices deal with

design and layout of can-handling systems' (pp. 42-57); 'Recommendations for can cooling water systems' (pp. 58-77); 'Recommendations for the sanitation of post-process can-handling equipment', including the limitation, cleaning and disinfection of wet conveying systems and sanitation requirements for hydrostatic sterilizers (pp. 78-157); 'Recommendations for personal hygiene of operatives handling processed cans' (pp. 158-65). 6 appendices cover the determination of Cl residues in and bacterial examination of can cooling water; procedures for assessing bacteriological contamination of equipment and hands of operatives; materials; equipment; protective clothing; and a training scheme for operatives employed in cleandown and production. AB

266

[Sanitation in the food industry.] Sanitarnaya tekhnika na predpriyatiyakh pishchevoi promyshlennosti. [A book]

Litinskii, A. M.

207pp. (1968) [Ru] Moscow: Pishchevaya promyshlennost' Price 47 k.

A handbook for sanitary and technological staff which is also recommended as technical textbook. It deals with problems of heating, classification of heating systems, ventilation, classification of ventilation systems, cold water supply, sewerage, waste water types, gas supply and control systems. STI

267

Micro-analytical entomology for food sanitation control. [A book]

Kurtz, O'D. L.; Harris, K. L.

xiii + 576pp. (1968) [Numerous ref. En] Washington, D.C.: AOAC. Price \$15 [Lauhoff Grain Co., Danville, Illinois, USA]

This very detailed, well-illustrated reference manual is intended to assist analysts and other users in the identification of specific insect structures and the preparation of full and accurate interpretations of their findings. The introduction provides a framework for the technical sanitation-entomological material. Principles and examples are presented to establish an understanding of insect infestation and its relationships to fragment contamination of food products. The discussions on basic morphology provide an adequate background for the microscopic details of fragment analyses. The information is arranged under the following heads: 'Entomological principles' (pp. 17-29); 'Morphology of principle orders' (pp. 33-116); 'Stored products insects' (pp. 119-466); 'Flies of sanitation significance and pests of agricultural crops' (pp. 467-97); 'Moth larvae of contamination significance as agricultural pests of food' (pp. 501-13); 'Cockroaches' (pp. 517-29); 'Miscellaneous insect contaminants' (pp. 533-55). VJG

268

Toxic constituents of plant foodstuffs. [A book]

Liener, I. E. (Editor)

xiii + 500pp. (1969) [Numerous ref. En] New York, London: Academic Press. Price 187s [Dept. Biochem. Univ., St. Paul, Minnesota, USA]

The purpose of this book is to direct the attention of food producers, to the existence of natural chemical constituents in plants which may be potentially harmful to man or animals. The book deals with some of the more important topics which have not previously been reviewed in detail. Each chapter contains information on the distribution of each toxic constituent among the various plants, a detailed treatment of their chemistry and properties, their physiological and toxicological effects, mechanism of action and ways and means whereby these toxic constituents may be eliminated. A detailed bibliography accompanies each chapter. The following chapters are included: 'Protease inhibitors', by I. E. Liener & M. L. Kakade (pp. 8-68); 'Haemagglutinins', by W. G. Jaffe (pp. 69-101); 'Goitrogens', by C. H. VanEtten (pp. 103-42); 'Cyanogens', by R. D. Montgomery (pp. 143-57); 'Cycads', by M. G. Yang & O. Mickelsen (pp. 159-67); 'Saponins', by Y. Birk, (pp. 169-210); 'Gossypol', by L. C. Berardi & L. A. Goldblatt (pp. 211-66); 'Larythrogens', by P. S. Sarma & G. Padmanaban (pp. 267-91); 'Favism', by J. Mager, A. Razin & A. Hershko (pp. 293-318); 'Allergens', by F. Perlman (pp. 319-48); 'Adventitious toxic factors in processed foods', by L. Friedman & S. I. Shibko (pp. 349-480); 'Miscellaneous toxic factors', by I. E. Liener (pp. 409-48). VJG

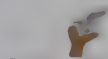
269

[Foreign substances in foods.] Cudzorode lathy v pozivatinach. [A book]

Rosival, L.; Szokolay, A.

317pp. (1969) [Numerous ref. Sk] Martin, Czechoslovakia: Osveta. Price 39 Kcs.

Foreign substances are discussed with reference to their use in agriculture and the food industry. Each substance is dealt with from the point of view of its characteristics, occurrence, chemical structure, use and effects on humans. The book contains the following chapters: General classification of foreign substances in foods; Evaluation of foreign substances from the point of view of toxicology and chemical hygiene; Contaminating substances; Food additives; and Endogenous foreign substances in foods. Special attention is paid to the effect of plastics materials, to ionizing irradiation of foods, to food preservatives and to foreign substances produced during processing and storage. STI



270

[Manual of technical, and of veterinary and public health control in cold stores.]

Tekhnologicheskii i veterinarno-sanitarnyi

kontrol' na khodil'nikakh (spravochnoe rukovodstvo). [A book]

Zolotarevskii, A. I.; Kukharkova, L. L.;
Rusakov, V. N.; Ryndina, V. P.; Tarshis, M. G.;
Tsyss, E. F.
175pp. (1969) [13 ref. Ru] Moscow, USSR:
Izdatel'stvo 'Pishchevaya Promyshlennost'. Price
0.64 Rouble

This illustrated manual, intended for specialist personnel concerned with cold stores, deals with control and inspection of carcasses and animal and dairy products in cold stores under the following chapter headings: 'Organization of quality control of products' (pp. 3-9); 'Vet. and public health inspection' (pp. 9-29); 'Technical and commodity control' (pp. 30-88); 'Control of hygiene conditions in cold stores' (pp. 89-94); 'Lab. control' (pp. 94-144); 'Protection of products from radioactive and bacterial contamination and contamination with poisonous substances' (pp. 145-56); 'Decontamination of cold stores' (pp. 156-68); and 'Labour protection and safety measures' (pp. 168-71). SKK

271

Modern trends in toxicology, I. [A book]

Boyland, E.; Goulding, R. (Editors)
viii + 317pp. (1968) [Numerous ref. En] London:
Butterworth & Co. (Publishers) Ltd. Price 75s.
[Chester Beatty Res. Inst., Inst of Cancer Res.,
Royal Cancer Hospital, London, England]

This book is one of the Modern Trend Series which aims to provide a guide to medical research and progress by means of a series of books containing critical essays. Emphasis in this volume is placed on experimental approach, in so far as this may provide means of assessing the possible hazards to man from the various substances in the environment. Though primarily of interest to medical workers, some chapters are relevant to food science and technology. They are: 'The purpose and value of LD₅₀ determinations', by J. K. Morrison, R. M. Quinton & H. Reinert (pp. 1-17, 72 ref.); 'Reproduction tests', by O. G. Fitzhugh (pp. 75-85, 18 ref.); 'Teratology', by J. M. Robson & F. M. Sullivan (pp. 86-106, 34 ref.); 'Carcinogenicity', by E. Boyland (pp. 107-29, 50 ref.); 'Function tests', by A. Frazer (pp. 130-48, 39 ref.); 'Behavioural studies', by R. W. Brimblecombe (pp. 149-74, 82 ref.); 'Tests in man', by W. J. Hayes Jr. (pp. 198-230, 48 ref.); 'Food additives', by J. M. Philp (pp. 243-66, 73 ref.); 'Pesticides', by E. F. Edson, D. N. Noakes & D. M. Sanderson (pp. 267-96, 26 ref.) A subject index is included. JA

272

Bacterial food poisoning. [A book]

Taylor, J. (Editor)
175pp. (1969) [Numerous ref. En] London: Royal
Society of Health. Price 26s

The book entitled 'Food poisoning', published in 1962 by the Royal Society of Health, has been

largely rewritten and brought up to date to produce this new work which deals mainly with food poisoning caused by Salmonella. 6 additional chapters which were presented at a conference on Salmonella infection held by the Royal Society of Health in 1967 have been included. Chapters are: 'Introduction', by J. Howie (pp. 1-4); 'Reporting and incidence of food poisoning', by W. C. Cockburn & E. Vernon (pp. 5-21, 27 ref.); 'Salmonella and salmonellosis', by J. Taylor (pp. 23-46, 50 ref.); 'The use of bacteriophage typing in the investigation of outbreaks of Salmonella food poisoning', by E. S. Anderson (pp. 47-65, 19 ref.); 'Staphylococcal and Clostridium welchii food poisoning', by B. C. Hobbs (pp. 67-83, 87 ref.); 'Salmonella infection in farm livestock in Britain', by E. A. Gibson (pp. 85-99, 15 ref.); 'Salmonella infection: the position of animal food and its manufacturing process', by P. B. Riley (pp. 101-15, 24 ref.); 'An assessment of recent epidemiological events in Salmonella infection', by D. J. H. Payne (pp. 117-31, 7 ref.); 'Breaking the chain of Salmonella infection', by K. J. Tyler (pp. 133-49, 18 ref.); 'The pasteurization of whole egg', by L. Heller (pp. 151-60, 6 ref.); 'Canned and cooked meats: their role in Salmonella food poisoning', by R. Spencer (pp. 161-75, 31 ref.). JA

273

Hygiene in food manufacturing and handling. [A book]

Graham-Rack, B.; Binsted, R.
v + 148pp. (1964) [23 ref. En] London: Food Trade
Press Ltd.

In this book no previous specialised knowledge of the subject is assumed and fundamental principles are outlined in each chapter. Practical advice is included on plant construction which should be of use to food processors and manufacturers. Chapters are: 'An introduction to the problems of food poisoning and spoilage' (pp. 3-8); 'Bacteria, moulds and yeasts' (pp. 9-18); 'Digestive system' (pp. 19-22); 'Food processing and infection' (pp. 23-27); 'Cases of food poisoning' (pp. 28-34); 'Non-bacterial food poisoning' (pp. 35-38); 'Food spoilage' (pp. 39-44); 'Protection of food' (pp. 45-54); 'Construction and layout of plant and equipment' (pp. 55-72); 'Cleaning methods' (pp. 73-112); 'Food pests and their control' (pp. 113-26); 'Vital role of pest control' (pp. 127-39); 'Statutory regulations' (pp. 140-45). JA

274

Practical food inspection. [A book]

Martin, C. R. A.
vii + 770pp. 7th edition (1969) [En] London: H. K.
Lewis & Co. Ltd. Price 100s.

Recent advances in food science have necessitated the revision of this text on food inspection and quality and purity control. This revised edition is divided into 4 parts: 'Meat inspection'; 'Fish, poultry and other foods'; 'Food treatment and epidemiology'; and 'Legal procedure'. The following chapters are included:

'Physiology and comparative anatomy' (pp. 3-35); 'Age indications, sexual differences and ante-mortem inspection' (pp. 36-53); 'Slaughterhouses and slaughtering: dressing of animals and preparation for sale' (pp. 54-83); 'A system of meat inspection' (pp. 84-99); 'Physiological abnormalities, etc., and malformations' (pp. 100-10); 'Pathological abnormalities' (pp. 111-54); 'Infectious diseases' (pp. 155-229); 'Parasites' (pp. 230-93); 'Preservation of meat' (pp. 294-320); 'Fish' (pp. 323-78); 'Poultry and game' (pp. 379-408); 'Fruit, vegetables and cereals' (pp. 409-45); 'Canned foods' (pp. 446-65); 'Milk and milk products' (pp. 466-540); 'Miscellaneous foods' (pp. 541-96); 'Food additives and contaminants' (pp. 599-628); 'Food poisoning' (pp. 629-53); 'Food hygiene' (pp. 654-70); and 'Legal procedure' (pp. 673-748). VJG

275

Food-borne infections and intoxications. [A book] Riemann, H. (Editor) xxviii+698pp. (1969) [Numerous ref. En] London, UK: Academic Press Inc., Ltd. [Dept. of Epidemiology and Preventive Med., School of Vet. Med., Univ., Davis, California, USA]

This book, fifth in the series of Food Science and Technology Monographs, is divided into 3 sections: Food-borne infections; Intoxications of microbial origin; and Miscellaneous (including plant and animal toxins etc.). The following chapters are included: Salmonella and Arizona infections, by J. Taylor and J. H. McCoy (pp. 3-72, numerous ref.); Viral infections, by D. O. Cliver (pp. 73-113, numerous ref.); Halophilic Vibrio infections, by R. Sakazaki (pp. 115-29, 32 ref.); Clostridium perfringens and Bacillus cereus infections, by B. C. Hobbs (pp. 131-73, numerous ref.); Parasitic infections, by G. R. Healy & N. N. Gleason (pp. 175-222, numerous ref.); Infections due to miscellaneous microorganisms, by F. L. Bryan (pp. 223-87, numerous ref.); Botulism - Types, A, B, and F, by H. Riemann (pp. 291-327, numerous ref.); Botulism - Type E, by G. Sakaguchi (pp. 329-58, 72 ref.); Staphylococcal intoxications, by R. Angelotti (pp. 359-93, numerous ref.); Alimentary mycotoxicoses, by G. N. Wogan (pp. 395-451, numerous ref.); Laboratory methods, by T. H. Silliker & R. A. Greenberg (pp. 455-87, 65 ref.); Food processing and preservation effects, by H. Riemann (pp. 489-541, numerous ref.); and Poisonous plants and animals, by H. G. Scott (pp. 543-604, numerous ref.). VJG

276

Sanitary techniques in food service. [A book] Longree, K.; Blaker, G. G. xii+225pp. ISBN 0 471 54460 4 (cloth) 0 471 54461 2 (paper) (1971) [35 ref. En] New York, USA: J. Wiley & Sons, Inc. [Cornell Univ., Ithaca, New York, USA]

This book which considers the principles and techniques of food sanitation is divided into 4 parts: Food sanitation and microbiology; Food

spoilage and foodborne illnesses; Sanitary practice; and Education and training in sanitation of food service personnel. The following chapters are included: The meaning of food sanitation (pp. 3-5); Basic facts about microorganisms (pp. 6-15); Definition of terms (pp. 16-20); Food spoilage (pp. 25-27); Transmission of disease through food (pp. 28-32); Food poisonings and food infections caused by bacteria (pp. 33-47); Food poisoning caused by agents other than microorganisms (pp. 48-49); Reporting and investigating foodborne illnesses (pp. 50-53); Clean facility (physical plant) (pp. 59-77); Clean equipment and utensils (pp. 78-119); A sound food supply: purchasing and sanitary storage (pp. 120-45); The sanitation-conscious food handler: his health, personal hygiene, work habits, interests and attitude (pp. 146-51); Sanitary procedures of preparing and holding food: general principles (pp. 152-69); Techniques for handling specific hazardous menu items (pp. 170-88); and Education and training in sanitation of food service personnel (pp. 191-96). Scientific background information relating to diseases and their transmission is assembled in tables and presented in the appendix. VJG

277

Poisoning misadventures. Narrative excerpts on food-borne diseases and poisoning for the physician, microbiologist, attorney and nutritionist. [A book]

Jensen, L. B. x+202pp. (1970) [114 ref. En] Springfield, Illinois, USA: Charles C. Thomas Price £10.50.

This book contains narrative excerpts on food-borne diseases and poisoning for the physician, microbiologist, attorney and nutritionist. Scientific background information is not presented. Included are experiences in litigation and courtroom scenes, together with readings from ancient and medieval documents. These relate to various kinds of poisoning resulting from bacterial toxins, inorganic and natural vegetal and animal poisons, together with food-borne diseases caused by pathogenic bacteria and viruses. VJG

278

Metabolic aspects of food safety. [A book] Roe, F. J. C. (Crampton, R. F.; Hubbard, A. W.; Thomson, J.; Drasar, B. S.; Hill, M. J.; Williams R. E. O.; Gillette, J. R.; Brodie, B. B.; Lu, F. C.; Munro, H. N.; Weil, C. S.) (Editor) xxiii+612pp. SBN 632 06790 X [Numerous ref. En] Oxford, UK: Blackwell Scientific Publications. Price £7.00 [Univ., London, UK]

This book is based on the proceedings of the Second Nuffield Conference on Food Safety, held in 1969. The use of animal tests and their interpretation in relation to the toxicity or safety of constituents of food are considered. Chapter headings include: Absorption from

gastrointestinal tract, as applied to food additives, by R. F. Crampton (pp. 59-88; numerous ref.); Specification of food additives: application and limitation of analytical methods, by A. W. Hubbard and J. Thomson (pp. 191-214, 16 ref.); The significance of the gut flora in safety testing of food additives, by B. S. Drasar, M. J. Hill and R. E. O. Williams (pp. 245-60; 30 ref.); Enzyme induction in laboratory animals and its relevance to food additive investigation, by J. R. Gillette and B. B. Brodie (pp. 261-283; numerous ref.); Significance of age of test animals in food additive evaluation, by F. C. Lu (pp. 285-308; numerous ref.); Aspects of protein metabolism relevant to food safety evaluation, by H. N. Munro (pp. 329-62; numerous ref.); Significance of organ-weight changes in food safety evaluation, by C. S. Weil (pp. 419-54; numerous ref.). JN

279

Disinfection. [A book]

Benarde, M. A. (Editor)

xv + 466 pp. (1970) [Numerous ref. En] New York, USA: Marcel Dekker Inc. Price £11.65 [Dept. of Community Med., Hahnemann Med. Coll. and Hospital Philadelphia, Pennsylvania, USA]

This book, of interest to those concerned with bacteriologists, industrial microbiologists, the reduction of microbial populations (research public health laboratory workers, hospital personnel, etc.), considers the theory, kinetics, mechanisms, and practical applications of disinfection. It includes the following chapters: Nutrition and metabolism of micro-organisms, by B. W. Koft (pp. 1-29, 16 ref.); Mechanisms of disinfection, by W. B. Hugo (pp. 31-60, 53 ref.); Kinetics of disinfection, by A. Prokop & A. E. Humphrey (pp. 61-83, 38 ref.); The spore problem, by P. M. Borick & R. E. Pepper (pp. 85-102, 61 ref.); Virus disinfection, by K. Grossgebauer (pp. 103-48, 77 ref.); Gaseous disinfection, by C. W. Bruch & M. K. Bruch (pp. 149-206, 164 ref.); Disinfection in the dairy industry, by L. F. L. Clegg (pp. 311-75, 128 ref.); Disinfection in the seafood industry, by J. Liston (pp. 377-92, 40 ref.); Disinfection in the food processing industry, by D. J. Oliviant & D. A. Shapton (pp. 393-428, 27 ref.); and disinfection in the beverage industry, by A. L. Lineweaver (pp. 429-48, 11 ref.). Current hospital procedures in the USA, SSR and Japan are also critically evaluated in 3 chapters (pp. 207-309). CDA

80

Sanitation in the food industry.]

Sanamineto de la industria alimentaria. [A book] Montes, A. L.

12pp. (1969) [Numerous ref. Es] Buenos Aires, Argentina: EUDEBA. Price \$8.50 [Fac. de C. Exactas y Naturales, Univ., Buenos Aires, Argentina]

This introductory text for industrial managers

outlines fundamental concepts and principles of sanitation, reference also being made to nutritional problems, food preservation and food additives. Chapters are: Food and nutrition (pp. 1-15); Sanitation in the food industry and its results (pp. 29-42); Microbiological aspects of sanitation (food poisoning and spoilage) (pp. 43-69); Food preservation (pp. 71-117); Water and wastes in food plants (pp. 119-23); Hygiene in food plants (detergents and chemical disinfectants) 2pp. 125-40; Food additives and contaminants (pp. 141-68); Food packaging (cans and packaging materials) (pp. 169-80); and Sanitation practice (pp. 181-88). An appendix reviews food laws and regulations in Argentina (pp. 189-204). AS

281

Aflatoxin. Scientific background, control, and implications. [A book]

Goldblatt, L. A. (Editor)

xii + 472pp. (1969) [Numerous ref. En] New York, USA & London, UK: Academic Press Inc. Price \$21.50 [Southern Utilization Res. and Development Div., Agric. Res. Service, USDA, New Orleans, Louisiana, USA]

This volume in the Food Science and Technology series of Monographs is of interest to all concerned with production and processing of food and feeds, nutrition and animal and public health. Chapters include: Aflatoxin formation by *Aspergillus flavus*, by U. L. Diener & N. D. Davis (pp. 13-54, numerous ref.); Structure and chemistry of aflatoxins, by G. Buchi & I. D. Rae (pp. 55-75, 29 ref.); Physicochemical assay of aflatoxins, by W. A. Pons, Jr. & L. A. Goldblatt (pp. 77-105, 80 ref.); Biological assay for aflatoxins, by M. S. Legator (pp. 107-49, 74 ref.); Metabolism and biochemical effects of aflatoxins, by G. N. Wogan (pp. 151-86, 66 ref.); Types of mycotoxins in foods and feeds, by A. J. Feuell (pp. 187-221, numerous ref.); Aflatoxicosis in farm animals, by R. Allcroft (pp. 237-64, 67 ref.); Aflatoxicosis and trout hepatoma, by J. E. Halver (pp. 265-306, 57 ref.); Fungal spoilage in stored crops and its control, by C. Golu (numerous ref.); Processing to ensure wholesome products, by C. J. Kensler & D. J. Natoli (pp. 333-35, 17 ref.); Appendix (Voluntary code of food practices for purchasing, handling, storage, processing and testing of peanuts. 6th edition, Nat. Peanut Council, Aug. 1968) (pp. 355-58); Detoxification of aflatoxins in foods and feeds, by F. G. Doller (pp. 359-91, 78 ref.); Regulatory aspects of control of mycotoxins in foods and feeds, by B. L. Oser (pp. 395-400, 6 ref.); and Implications of fungal toxicity to human health, by H. F. Kraybill & R. E. Shapiro (pp. 401-41, numerous ref.). JA

282

Hygiene and food production. [A book]

Fox, A. (Editor)

ix + 176pp. ISBN 0 7000 1521 3 (1971) [182 ref.]

En] London, UK: Churchill Livingstone. Price £2.00 [Polytechnic of the South Bank, London, UK]

The contribution to this volume, which are based on the papers presented at a symposium on Hygiene and Food Production held at Borough Polytechnic on 23-24 March 1970, are in 4 sections. Food hygiene and the individual, the first section, includes: Person hygiene, by R. L. Ferguson (pp. 2-8, 3 ref.); Food poisoning, by R. J. Gilbert, (pp. 9-25, 66 ref.); and Food hygiene legislation, by M. Parry (pp. 27-38). The two papers in the second section, Hygiene and primary foods are: Hygiene control of plant foods during transport and storage, by R. G. Tomkins (pp. 40-57, 11 ref.) and Hygiene and flesh foods, by R. Spencer (pp. 59-74, 18 ref.). In the third section, covering Hygiene and processed foods, the papers are as follows: Hygiene and meat products, by E. J. Dyett (pp. 76-84, 11 ref.); Hygiene in the dairy industry, by J. G. Davis (pp. 85-106, 52 ref.); The hygienic production of bread and flour confectionery, by D. A. L. Seiler (pp. 107-117, 5 ref.); and The control of Salmonella in broiler chickens, by W. E. Crabb and M. Walker (pp. 119-131, 8 ref.). Finally, the section on Environmental hygiene in relation to food production includes papers on: Design and operation of food plant, by D. T. Shore and R. Jowitt (pp. 134-142); Detergents and biocides, by R. Thompson (pp. 143-154, 12 ref.); and Pest control in the food industry, by A. M. Shenker (pp. 155-170, 4 ref.). A 6 page subject index is included.

AB

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[Sanitary measures in canning factories.]

Sanitarnaya tekhnika na konservnykh zavodakh. [A book]

Tseskis, L. S.; Shmukler, A. S.; Rozenboim, A. Yu. 155pp. (1971) [29 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'

This work is divided into 3 section, as follows: Section 1 (pp. 5-59) is entitled Requirements for production buildings, heating, ventilation and fuel supplies, and consists of 4 chapters, viz. Requirements for production buildings, heat losses and ambient conditions in canning departments; Heating; Undesirable working conditions arising in production shops, and ventilation; and Fuel supplies. Section 2 (pp. 60-91) is entitled Water supply, and consists of 4 chapters, viz. Water consumption and quality; Water supplies from surface and underground sources, and water purification; Technological and recirculatory water supplies; and Operation of waterwork systems. Section 3 (pp. 92-121) is entitled Waste waters and sewage networks, and consists of 2 chapters, viz. Waste waters and sewage pipelines; and Purification of waste waters, operation of purification plant and utilization of waste. A 30-pp.

appendix contains a wide variety of practical information, such as the major characteristics of the basic machinery used in the industry; nomograms and graphs for calculating pressures, evaporation losses etc.; basic essential characteristics of water in reservoirs, etc. HBr

284

[First National Conference on Salmonellae and salmonellosis, Sofia, 25-26th April, 1968.] Purva natsionalna Konferentsiya po Salmonelite i Salmonelozite, Sofiya, 25-26. IV. 1968 g. [A book] Bratanov, K. 332pp. (1970) [Numerous ref. Bg, ru, en] Sofia, Bulgaria: Izdatelstvo na Bulgarskata Akademiya na Naukite

Papers read at the conference included: Occurrence of salmonellae in the mammary gland of the ewe, by I. Iordanov, I. Slavkov & B. Bo hilov (pp. 155-159, 12 ref.); Microflora of waste waters from the isolation slaughterhouse in Sofia, by I. Slavkov (pp. 181-183, 4 ref.); Case of Salmonella poisoning on an international air flight [caused by infected mayonnaise], by S. Staikov (pp. 205-207, 6 ref.); Decontamination of hens' eggs from an industrial unit infected with Salmonella, by Kh. Delchev & G. Zhecheva (pp. 209-212, 11 ref.); Food poisoning caused by Salmonella gallinarum-pullorum [from hens' eggs for cream fillings], by R. Kirov (pp. 219-221, 3 ref.); Food poisoning in a creche, due to Salmonella newport [from a milk-egg cream filling], by Kh. Khadzhiroleva, G. Atanasov, G. Raichev, Z. Bozakov & B. Mikhailova (pp. 233-236, 13 ref.); and Outbreak of Salmonella poisoning, due to contaminated meat, in an urban kitchen preparing infants' foods by G. Avdzhiev, M. Chukchukov, A. Strateva, G. Kostova & Zh. Yang'ozov (244). HBr

285

Probiotics. [A book]

Sperti, G. S. (Editor)

ix + 121 pp. ISBN 0 87055 099 3 (1971) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc. Price \$20.50 (US), \$21.50 (Foreign) [St. Thomas Inst., Cincinnati, Ohio, USA]

This book embodies a series of researches on bodily defence against infection and disease. Broadly speaking, experiments have demonstrated that resistance to bacteria can be artificially induced to a high degree. Experiments were confined to laboratory animals. Chapters are: Introduction (pp. 1-8, 77 ref.); Preparation of tissue fractions (probiotics) for bacteriological studies (pp. 9-13, 2 ref.); In vitro studies of the effects of probiotics from beef spleen on *Staphylococcus aureus* (pp. 14-18, 13 ref.); In vitro and in vivo studies of probiotics on *Staphylococcus aureus* (pp. 19-33, 10 ref.); Comparative action of probiotics from beef brain and of penicillin on *Staphylococcus* infection (pp. 34-46, 12 ref.); Effects of probiotics from a

variety of tissues on a number of organisms (pp. 47-58, 9 ref.); The effect of probiotics from beef brain on encephalomyocarditis virus in mice (pp. 59-65, 1 ref.); Importance of diet and strain in assay of probiotics (pp. 66-72, 3 ref.); Identification of active principles (pp. 73-91, 4 ref.); and Search for host reactions to probiotics (pp. 92-118, 19 ref.). JA

286

[Modern encyclopaedia of food hygiene. Vol. I. Food requirements of normal people.]

Encyclopedie moderne de l'hygiene alimentaire. Tome I. Exigences alimentaires de l'homme normal. [Book]

Lederer, J.

189pp. (1970, publ. 1971) [Fr] Louvain, Belgium, Editions Nauwelaerts. [Universite de Louvain, Belgium]

Nutritional requirements of humans are discussed with reference to requirements for protein, fat carbohydrates, minerals, vitamins and cellulose. AA

287

[Modern encyclopaedia of food hygiene. Vol. II. Food hygiene.] Encyclopedie moderne de l'hygiene alimentaire. Tome II. Hygiene des aliments. [Book]

Lederer, J.

275pp. (1970, publ. 1971) [Fr]

Purification, preservation, deterioration and contamination of various food products is discussed including: Water; Milk i.e. raw, pasteurized, sterilized, condensed and dried milk, and milk products such as cheese, yoghurt, fresh cream, buttermilk and ice cream; Fats and oils, including butter and margarine; Meat; Fish, crustaceans and shell-fish; Eggs; Vegetables, including potatoes, root vegetables, green vegetables and mushrooms; Fruit; Cereals; Sugar, including cane sugar, beet sugar and honey; and Alcoholic beverages, including wine and beer. AA

288

[Modern encyclopaedia of food hygiene. Vol. III. Technology and food hygiene.] Encyclopedie moderne de l'hygiene alimentaire. Tome III.

Technologie et hygiene alimentaire. [Book]

Lederer, J.

127pp. (1970, publ. 1971) [Fr]

Aspects considered include: hygiene of personnel in contact with foods; effects of cooking and food preservation on food quality; and packaging of foods. AA

289

[Modern encyclopaedia of food hygiene. Vol. IV. Food poisoning.] Encyclopedie moderne de l'hygiene alimentaire. Tome IV. Les intoxications alimentaires. [Book]

Lederer, J.

156pp. (1970, publ. 1971) [Fr]

The following aspects are dealt with: toxins of bacterial origin; toxic components in plant foods; contamination of foods by radioactive elements such as ^{90}Sr , ^{137}Cs and ^{131}I ; toxic components in fish and related products; food additives; colorants; contamination of foods with metallic salts; pesticide residues; and antibiotic residues. AA

290

[Occurrence and prevention of microbial food contamination and food poisoning.] Entstehung und Verhütung von mikrobiellen Lebensmittelinfektionen und -vergiftungen. [Book]

Seeliger, H. P. R.

117pp ISBN 3 506 18018 5 (1971) [many ref. De] Ferdinand Schöningh Verlag Paderborn, Federal Republic of Germany [Inst. für Hygiene und Mikrobiologie, Univ., Würzburg Federal Republic of Germany]

This practically oriented book, in the 'Modern Domestic Science' series, is written from the viewpoint of the hygienist and microbiologist, and is designed for all persons actively engaged in food production, from the housewife to the head cook in hospitals or institutions. The topic is covered in the following chapters: Legislation governing foods and epidemics; Proliferation of microorganisms and occurrence of their toxins in foods; Causes, interrelationships and required measures for prevention of food contamination and food poisoning; Cleaning and disinfection in kitchen and home; and Basic rules governing food processing hygiene in kitchen and home. A 5-pp. bibliography is appended. HBr

291

Health hazards of the human environment. [Book]

World Health Organization

387pp. (1972) [many ref. En] Geneva, Switzerland, Author. Price FS 44, £4.40, \$11.00

Part I of this 4-part survey includes a chapter on environmental hazards (biological, chemical and radiological contamination, pesticides, food additives, etc.) to which man is exposed through the medium of food; the principal microbiological contaminants of foods are listed. In a section on food sanitation in Part IV (Public Health principles and practices of intervention), the following aspects are discussed: UHT treatment and aseptic packaging of milk; the advantages and disadvantages of food irradiation; problems relating to the sterilization of food packaging materials and

containers; and the contamination of food by migration of components from packaging, especially of the plastics film type. Water pollution due to agricultural practices and, in particular, animal wastes is discussed in several parts of the survey. ADL

292

Food sanitation. [Book]

Guthrie, R. K.
247pp. (1972) [Numerous ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. price \$15.00 (US) \$16.00 (Foreign) [Clemson Univ., S. Carolina, USA]

This book for food industry workers and laymen, concerns the role of biology, especially microbiology, and air, land and water pollution in food supply sanitation for protection of public health. The subject is covered under the chapter headings: Sanitary science, by R. K. Guthrie (pp. 1-16, 6 ref.); Microorganisms and man, by R. K. Guthrie (pp. 17-35, 5 ref.); Microorganisms important to food sanitation, by R. K. Guthrie (pp. 36-60, 9 ref.); Control of microorganisms (pp. 61-87, 6 ref.); Chemicals and food, by R. K. Guthrie (pp. 88-93, 3 ref.); Water and sanitation in food industries, by R. K. Guthrie (pp. 94-103, 6 ref.); Wastes and sanitation, by R. K. Guthrie (pp. 104-111, 6 ref.); Sanitation in food production and processing, by R. K. Guthrie (pp. 112-129, 7 ref.); Sanitation in dairy food plants, by W. J. Harper (pp. 130-160, 4 ref.); Maintaining sanitary conditions in food canning plants, by G. V. Brauner (pp. 161-173, 7 ref.); Sanitation in food preparation and service, by R. K. Guthrie (pp. 174-200, 5 ref.); Sanitation of food preparation and service equipment, by F. D. Borsenik (pp. 201-214, 14 ref.). The appendix includes: Glossary (pp. 215-216); Some common infectious diseases (pp. 217-229); Selected representative laws, codes, and ordinances governing food industries (pp. 230-241), and Recommended health codes (pp. 241-242). A 5-pp subject index is included. JN

INDUSTRIES, STATISTICS,**MANAGEMENT, ECONOMICS**

293

UNIDO Monographs on industrial development No. 9. Food-processing industry.

United Nations Industrial Development Organisation
77pp. (1969) [En] New York: Author

This monograph, based on the Proceedings of the International Symposium on Industrial Development held in Athens in 1967, includes chapters on: Nature of the processing industry (pp.5-14); World food trends (pp.15-18); Major factors to consider in establishing the food industry (pp.19-24); Evaluating food processes (pp.25-37); The food factory (pp.38-42); Food processing

investment factors (pp.43-53); The International Symposium on Industrial Development: issues, discussion, and recommendations (pp.54-63); UNIDO action to promote food-processing industries (pp.64-68). Annexes include: INIDO assistance in food processing; seminars, symposia and working groups; selected list of documents and publications. JN

294

The state of food and agriculture 1970. [A book] Food & Agriculture Organization

xii + 274pp. (1970) [En] Rome, Italy: Author

This statistical survey is composed of 3 main sections: World review (pp. 1-33); Review by regions (pp. 35-123); and Agriculture at the threshold of the second development decade (pp. 125-93). The world review deals with: Agricultural production (pp. 1-13); International trade (pp. 13-24); Development assistance (pp. 24-2); Fertilizers (pp. 29-30) and Medium-term forecasts for cereals (pp. 31-33). Regions reviewed are: Western Europe (pp. 35-47); Eastern Europe and the USSR (pp.47-54); North America (pp. 54-63); Oceania (pp. 63-67); Latin America (pp. 67-78); Far East (pp. 79-96); Near East (pp. 96-108); Africa (pp. 108-23). The third section is subdivided into: Postwar trends (pp. 127-53) and Some agricultural problems in the second development decade (pp. 153-93). Annex tables (pp. 196-274) provide world and regional statistics for production and trade in agricultural, fishery and forest products. VJG

295

Plantation crops. 12. A review of production, trade, consumption, and prices relating to coffee, cocoa, tea, sugar, spices, tobacco and rubber. [A book]

Commonwealth Secretariat
vi + 291pp. (1969) [En] London: Commonwealth Secretariat. Price 40s.

The aim of this annual review is to present up-to-date summaries of production, international trade and consumption for plantation crops, special reference being made to the part played by Commonwealth countries. This issue gives detailed production and trade figures up to 1968. Sections include: 'General review' (pp. 1-18); 'Coffee' (pp. 19-45); 'Cocoa' (pp. 46-62); 'Tea' (pp. 63-82); 'Sugar' (pp. 83-110) and 'Spices' (pp. 111-50). Appendices included are: 'International agreements' (pp. 215-46); 'Export duties and cesses on plantation products' (pp. 247-53) and 'Duties on plantation products imported into certain countries' (pp. 254-91). JA

296

Food statistics. [A book]

Rocke, J. R. M. (United Kingdom, Economic Development Committee for Food Manufacturing)

(Chairman)

iii + 54pp. (1969) [En] [Nat. Economic Development Office, Millbank Tower, 21/41 Millbank, London SW1, England]

Sources of statistical information relating to production and consumption of food are listed under the following headings: 'Availability of raw materials'; 'Purchases of raw materials'; 'Production of manufactured goods'; 'Stocks'; 'Prices of food manufacturers raw materials'; 'Prices of food manufacturers finished products'; 'International trade'; 'Distribution'; 'Consumers expenditure and consumption'; 'Future market size'; 'Manpower'; 'Capital investment'; 'Industrial structure'; 'Profitability and operating ratios'; 'Company information'; 'Research and development expenditure'; and 'Advertising expenditure'. VJG

297

[The Moldavian food industry and prospects for its development.] Pishchevaya promyshlennost' Moldavii i perspektivy ee razvitiya. [A book] Shkorpuev, I. S. 184pp. (1969) [24 ref. Ru] Kishinev, USSR: Izdatel'stvo 'Kartya Moldovenyaske'. Price 0.72 rouble

298

[Scientific organization of labour in the food industry.] NOT v pishchevom proizvodstve. [A book] Dolgoplova, A. S.; Shakhmagon, A. I. 65pp. (1968) [Ru] Moscow: Pishchevaya promyshlennost' Price 21 k.

The importance to the food industry of scientific organization of labour and means of increasing labour productivity are described. STI

299

Provisional Indicative World Plan for Agricultural Development. A synthesis and analysis of factors relevant to world, regional and national agricultural development. Volumes I & II. [A book] Food and Agriculture Organization Vol. I pp. 1-327; Vol. II pp. 331-672 (1970) [En] Rome, Italy: Author. Price 68s.

300

Organisation and administration of agricultural research. [A book] Arnon, I. xii + 342pp (1968) [Numerous ref. En] Amsterdam, London and New York: Elsevier Publishing Co. Ltd. [Volcani Inst. of Agric. Res., Israel]

This book is primarily written for policy makers in agricultural research organizations and for agricultural researchers. It examines the organization and administration of research and contains the following chapters: 'History of agricultural research and its present day

organization' (pp. 1-67); 'International cooperation in agricultural research' (pp. 68-87); 'Role and character of agricultural research' (pp. 88-109); 'Research planning' (pp. 110-40); 'The infra-structure of an agricultural research organization' (pp. 141-60); 'The research organization as a social system' (pp. 161-205); 'Theories of management' (pp. 206-24); 'The scientist as research administrator' (pp. 225-39); 'The researcher' (pp. 240-65); 'The research project' (pp. 266-83); 'Administration in the service of research' (pp. 284-303); 'Communications' (pp. 304-15); 'The translation of agricultural research findings into farming practice' (pp. 316-34). BSG

301

[Collection of organizational and planning duties in food industry enterprises.] Sbornik zadach po organizatsii i planirovaniyu proizvodstva na predpriyatiyakh pishchevoi promyshlennosti. [Book]

Zueva, R. V.; Voronin, V. G.; Kruzhkova, R. V.; Ponomareva, I. A.; Khinkis, L. A.; Shamin, A. N. 319pp. (1972) [Ru] Moscow, USSR Izdatel'stvo "Pishhevaya promyshlennost". Price 80 k.

The book contains the following chapters: Production process structure and its analysis; Technical standardization of labour and of workers wages organization; Organization of continuous operations; Scope of productivity and reserves; Organization of material and technical supplies; Production plans; Labour and wages planning; Determination of profits, rentability and funds for economical stimulation of productivity; Determination of the effect of the application of modern techniques and organizational measures on economics; Economic and mathematical planning methods. STI

302

[Advanced methods in the organization of production in the food industry of the USSR.] Kontsentratsiya proizvodstva i kombinirovaniye v pishchevoi promyshlennosti SSSR. [A book] Filatov, K. E.

363 pp. (1968) [Numerous ref. Ru] Moscow: Izdatel'stvo "Pishhevaya Promyshlennost"

The subject is dealt with under 2 major headings 'Concn. of production in the food industry' and 'Integration in the food industry', covering general problems, basic types of concn. of production and integration, trends and the assessment of economic effectiveness of concn. and integration. The book, documented with some 750 references, predominantly to Soviet sources, is intended in particular for sci. and technical personnel in the food industry. FL

303

[Optimization of technological processes in food

industry.] Optimalizatsiya tekhnologicheskikh protsessov v pishchevoi promyshlennosti. [Book] Demchenko, V. A.; Mandel'shtein, M. L.; Popov, L. P.; Trakhtenberg, E. M. 79pp. (1972) [51 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.27 rouble

Theoretical principles for profitable management with respect to choice and organization of production processes are discussed. Experiences achieved in the fats and oils industry and in the distillation industry are presented. The main chapters of the book deal with: methods of solving the problem of the most profitable management; optimal systems of organization for oil extraction processes; most favourable systems for the operation of rectification apparatus. STI

304

[Organization and planning of production in the food industries. 4th Edition.] Organizatsiya i planirovanie proizvodstva na predpriyatiyakh pishchevoi promyshlennosti. [Book] Donskov, V. E.; Zueva, R. V.; Kruzhkova, R. V.; Meshkov, Yu. K.; Ponomareva, I. A.; Khinkis, L. A.; Shamin, A. N. 592pp. (1972) [Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.56 r

305

[Economic and mathematical methods in the planning and organization of food industry.] Ekonomiko-matematicheskie metody v planirovanii i organizatsii pishchevoi promyshlennosti. [Book] Blazh, I. D. 303pp. (1972) [58 ref. Ru] Moscow, USSR, Pishchevaya Promyshlennost'. Price 0.85 r

Possibilities of the application of various economic and mathematic models for improving organization, planning and management are discussed. The main chapters of the book deal with: general aims of optimal planning methods; transport problems and methods of their solution; production development and organization; optimal production programmes in wine manufacturing plants; optimal production programmes in canning industries; economic and mathematic models for optimal distribution of the planned tasks; raw materials supplies; determination of optimal plans for meat industry development; optimal plans for the development of canning industries; optimal organization of sugar beet processing; economic and mathematical analysis in planning; correlation models in economics. STI

306

[Economic and mathematical models in the food industry.] Ekonomiko-matematicheskie modelirovanie v pishchevoi promyshlennosti. [A book]

Evenko, L. I.; Istomin, L. I.; Sukharev, A. M.; Tikhomirov, B. I. 302pp. (1970) [134 ref. Ru] Moscow, USSR: Pishchevaya Promyshlennost'. Price 1.75 roubles
Problems of the application of modern mathematic methods and computers in the food industry are discussed. A general view is given of cybernetics and automatic planning systems in individual production branches. Practical examples of mathematical models and computer application in individual branches and on an industrial scale are provided. STI

307

Economics of new food product development. [A book] Desrosier, N. W.; Desrosier, J. N. ix+217pp. ISBN 0 87055 102 7 (1971) [Numerous ref. En] Westport Connecticut, USA: AVI Publishing Co. Inc. Price US \$17.00; Foreign \$18.00

This book is based on a conference on new product development held by the New York section of IFT in 1970. It aims to describe the system used for successful marketing of new products, and is designed for research scientists, manufacturers, and marketing, financial and advertising groups. The subject is covered under the headings: Changing business scene; Market forecasting; The new product idea; Market research; R & D communications in a mass marketing company; The physical new product; New products and research laboratory management; Nature of the creative function in industry; Financial business decision guides; Legal aspects of new products; Merchandising and new products; Improving success potential of new products; Market exploration and acquisitions; Build a business or sell the product; The business of change. A 5-pp. subject index is given. JN

308

Economics of food processing. [A book] Greig, W. S. xi+373pp. ISBN 0 87055 096 9 (1971) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc. Price US \$21.00, Foreign \$22.00 [Washington St. Univ., Pullöman, USA]

The purpose of this book is to provide a general outline of some of the more important economic and business problem areas facing the food processing industry. Many of these problem areas are affected by or caused by changing social, political and technological conditions. International trade, competition and regulation are not included; however a substantial section is devoted to interregional competition. Chapters are: The size of the food processing industry in the US (pp. 1-4); The structure of the food processing industry (pp. 5-64); Economies of scale and future plant numbers

(pp. 65-84); Regulation of competition in food marketing (pp. 85-104); Measures of growth in food processing (pp. 105-124); The markets for food in the US (pp. 125-151); The changing technological base in food processing (pp. 152-204); Locational changes in food processing (pp. 205-226); Cost differences among states in food processing (pp. 227-295); The purchasing function in food processing (pp. 296-314); Food processing and pollution (pp. 315-325); Vertical integration and/or systems coordination (pp. 326-345); and A summary and speculations as to the future (pp. 346-367). A subject index is included. AB

309

[Economics of storing manufactured products.]

Ekonomika khraneniya prodovol'stvennykh tovarov. [A book]

Tarasyuk, Ya. I.

135pp. (1971) [8 ref. Ru] Moscow, USSR:

Izdatel'stvo Ekonomika. Price 0.43 rouble

This handbook for university students, teachers and practical workers in food distribution industry has the following chapters: Storage of supplies; Equipment used in warehouses; Storage of food products in the commercial network; and Analysis of economic profitability of storing food products. STI

310

Techno-economic study aiming to establish the present and future markets in the food industry for selected protein products of high potential economic interest in Europe. [A book]

Switzerland, Battelle Research Centre, Food Economics Research Unit

20pp. (1971) [En] 1227 Carouge-Geneva, Switzerland: Author

311

[Mathematical methods of planning and administration in the food industry.]

Matematicheski metody planirovaniya i upravleniya na predpriyatiyakh pishchevoi promyshlennosti. [A book]

Voronin, V. G.

320pp. (1971) [37 ref. Ru] Moscow, USSR:

Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.90 rouble

312

[Organization and production planning in the meat and dairy industries.]

Organizatsiya i planirovanie proizvodstva na predpriyatiyakh myasnoi i molochnoi promyshlennosti. [A book]

Stepanov, B. D.; Lebedev, V. V.; Sukhorukov, A. I.; Kholodnov, N. P.

440pp. (1971) [29 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.22 roubles

This book deals with the basic principles of organization and planning in factories of the meat and dairy industry covering some of the following aspects: management and labour; production and production control; costing of production; in-factory transport; and repair work and maintenance. The book is intended as a text book for students specializing in engineering and economics. FL

313

[Economics, organization and planning of the fishing industry in the USSR.] *Ekonomika, organizatsiya i planirovanie rybnogo khozyaistva SSSR.* [Book]

Gordon, L. M.

384pp. (1972) [Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'.

314

[Mathematical methods of planning and management in the meat and milk industries.]

Matematicheskie metody planirovaniya i upravleniya v myasnoi i molochnoi promyshlennosti. [Book]

Markin, Yu. P.

288pp. (1972) [36 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost' Price 0.75 r

315

[Meat and dairy industry in the USSR.] *Myasnaya i molochnaya promyshlennost' SSSR.* [Book]

Antonov, S. F.

64pp. (1971) [Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.26 rouble

This booklet gives information on developments in the dairy and meat industry in the USSR during the 8th 5-year plan (1966-1970), covering production of milk and meat products (including statistics) construction of new factories and ranges of products manufactured, equipment supplied, various aspects of labour organization, and finally the major tasks of the 2 industries in the current 5-yr plan. FL

316

[Use of mathematical programming in the meat industry and dairies.] *Primenenie matematicheskogo programmirovaniya v myasnoi i molochnoi promyshlennosti.* [A book]

Markin, Yu. P.

62pp. (1971) [7 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.20 rouble

317

[Economic analysis of meat and dairy industry undertakings.] *Analiz khozyaistvennoi deyatel'nosti predpriyatiy myasnoi i molochnoi promyshlennosti.* [A book] Lazarovich, G. S.; Yakovlev, K. K.; Shelenkov, K. I.
2nd edition 198pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.53 rouble

This text book, intended for students at economics departments of institutions of higher technical learning in the meat and dairy industries, consists of the following main chapters: Subject and method of economic analysis of activities of undertakings (pp. 4-11); Analysis of execution of production programme (pp. 11-57); Analysis of production costs (pp. 58-106); Analysis of achievement of target production and profitability (pp. 107-138); Appraisal of financial state of undertaking (pp. 138-174); Appraisal of capital investments (pp. 174-196). SKK

318

[Collected exercises for the course "Economics of the meat and dairy industries".] *Sbornik zadach po kursu "Ekonomika myasnoi i molochnoi promyshlennosti".* [A book] Zenenko, N. V.; Karakozova, V. V.; Krasnov, S. E.; Markin, Yu. P.; Mironova, V. G.; Moiseeva, T. I.; Sterligov, B. I.
376pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.98 roubles

This textbook, for students in the meat and dairy industries, is approved by the Ministry of Higher and Intermediate Specialized Education of the RSFSR, and contains the following chapters: The meat and dairy industries in the national economy (pp. 5-7); Fundamentals of theory and methods of determining cost efficiency of labour (pp. 8-39); Organization of management and planning (pp. 39-49); Raw materials (pp. 49-61); Concentration, specialization, cooperation and amalgamation (pp. 61-126); Location (pp. 126-163); Equipment (pp. 163-183); Production schedules (pp. 183-197); Capital construction (pp. 197-263); Basic plant and equipment (pp. 263-289); Working capital (pp. 289-298); Supply and consumption of materials (pp. 298-317); Labour, personnel and wages (pp. 317-346); and Actual costs, profitability and gain (pp. 346-371). Each chapter consists of specific exercises and examples for carrying them out. HBr

319

[Economic reorganization and work in food canning factories.] *Khozyaistvennaya reforma i ekonomicheskaya rabota na predpriyatiyakh konservnoi promyshlennosti.* [A book] Gradstein, Ya. S.; Danyushevskii, G. M.; Komarov, I. M.; Shoikhet, L. Z.
178pp. (1969) [Ru] Moscow, USSR: Isdatel'stvo

Pishchevaya Promyshlennost'. Price 0.62 rouble

The principles of economic reorganization are discussed in detail in relation to the fruit and vegetable canning industry. The main chapters deal with: new ways of planning and economic stimuli in the canning industry; formation and use of funds for economic incentives; planning of raw material purchases and calculation of costs; and improving the planning of production efficiency. STI

320

[Work environment in the food industry.] *Kultura pracovniho prostredi v potravinarskem prumyslu.* [A book]

Anon.

134 pp. (1968) [Cs] Prague, Czechoslovakia: 'Dum Techniky'. Price 40.0 Kcs

The book, intended for designers of industrial plant and buildings, factory health workers and designers of equipment for the food ind., discusses cultural problems of work environment, illumination and formation of the work environment, noise and the work environment, effects of industrial building, and problems of work environment in the food ind. STI

321

Work analysis and design for hotels, restaurants and institutions. [A book]

Kazarian, E. A.

vii + 356pp. (1969) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co. Inc. Price \$19.50 (US) \$20.50 (Foreign) [School of Hotel, Restaurant and Institutional Management, St. Univ., East Lansing, Michigan, USA]

The primary purpose of this book is to present the principles, knowledge and techniques required to successfully analyse work systems commonly found in hotels, restaurants and institutions in order to make them as efficient as possible. The book is intended to serve as a text book for students at universities and colleges, as a basic reference work for administrators in hotels, etc., and as a source of knowledge for the study of layout and design of facilities. Many illustrations are included and there is an extensive bibliography and a glossary of industrial engineering terms. Chapters are: 'Introduction to work analysis and design' (pp. 1-16); 'Philosophies of work analysis and design' (pp. 17-28); 'Work analysis and design procedures' (pp. 29-47); 'Principles of work analysis and design' (pp. 48-66); 'Human engineering' (pp. 67-102); 'Design for safety' (pp. 103-21); 'Function and activity analysis' (pp. 122-39); 'Sampling studies' (pp. 140-71); 'Product process analysis' (pp. 172-85); 'Paperwork analysis' (pp. 186-95); 'Man process analysis' (pp. 196-209); 'Designing work system layouts' (pp. 210-24); 'Operation analysis' (pp. 225-37); 'Multi-activity analysis' (pp. 238-47); 'Motion analysis' (pp. 248-64); 'Micromotion analysis' (pp. 265-70); 'Supplemental analysis techniques' (pp. 271-83); 'Time study' (pp. 284-93); 'Standard time data' (pp. 294-309); and 'Effective use of work analysis and design' (pp. 310-31). JA

322

[Specific problems in analysing the activities in food factories.] Osobennosti analiza raboty predpriyatij pishchevoi promyshlennosti. [A book] Knyazev, G.
122 pp. (1968) [Ru] Moscow: Izdatel'stvo Finansy. Price 35 k.

This book contains the following sections: an analysis of the fulfilment of the production plan with particular regard to the production costs; an analysis of the financial situation of the enterprises; specific problems of the analysis of the economic and financial situation of enterprises managed according to the new system of planning; the evaluation of the results of the analysis. STI

323

[Work analysis in food industry enterprises.] Osobennosti analiza raboty predpriyatii pishchevoi promyshlennosti. [A book] Knyazev, G.

125pp. (1968) [Ru] Moskva: Izdatel'stvo 'Finansy'
This publication discusses max. utilization of raw materials and optimal rationalization of manufacturing processes in the Soviet food industry under 4 main headings: production plan fulfillment, product costs analysis, overall plant finance, and administrative and financial aspects of enterprises operating the 1965 working programme (in which financial incentives and profit/loss balances figure prominently). Foods referred to specifically include sugar, confectionery, bread and bakery products, wines and alcoholic beverages. HBr

324

[Working conditions in the food industry.] Pracovní prostředí v potravinářském průmyslu. [A book] Blazek, K.

155pp. (1969) [29 ref. Cs] Prague, Czechoslovakia: CAZ-VUPP-STI. Price Kcs 5.-

Main factors influencing working conditions in the food industry are described, e.g. microclimate, light sources, intensity of noise, use of chemicals, presence of dust etc. Influence of the individual factors is discussed, and their characteristics and units for measurement are given. Measures for improvement of working conditions in food industry factories are suggested. STI

325

[Quality of food products and problems of economics.] Kachestvo pishchevykh produktov i voprosy ekonomiki. [A book] Tsunts, Z. I.

83pp. (1971) [Ru] /Moscow, USSR: Izdatel'stvo Pishchevaya promyshlennost'. Price 0.27 rouble

The book contains the following chapters: importance of quality in present-day conditions; economic problems connected with quality of food products; possibilities of food product quality

improvement; economic reform and quality of food products. STI

326

Economics of food retailing. [A book]

Padberg, D. I.

xi + 292pp. (1968) [En] Ithaca, New York, USA: Cornell Univ. Price \$9.00 [St. Coll. of Agric., Cornell Univ., Ithaca, New York, USA]

This book, compiled largely from data assembled by the National Commission of Food Marketing, is subdivided into 4 parts: Organization of the food retailing industry; Competitive behaviour of food retailers; Performance of the food retailing industry; and Conclusions. The following chapters are included: Concentration in food retailing (pp. 11-33); Concentration of purchases (pp. 35-47); Role of mergers in changing market structure (pp. 49-69); Vertical integration into food manufacturing (pp. 71-84); Private branding by retailers (pp. 85-95); Entry and growth of small firms (pp. 97-111); Physical efficiency, cost behaviour and scale economies (pp. 113-26); Price competition and price specials (pp. 127-40); Trading stamps: an example of non-price competition (pp. 141-64); Effects of local concentration on competitive behaviour (pp. 165-75); Retailers gross margins (pp. 177-85); Costs of retailing (pp. 187-202); Innovation (pp. 203-10); Profits of food retailers (pp. 211-27); Comparative performance of chain, affiliated and unaffiliated independent food retailers (pp. 229-44); Prices and margins in different income areas (pp. 245-53); and Conclusions (pp. 255-65). VJG

327

[Economics of the food industry in the USSR.] Ekonomika pishchevoi promyshlennosti SSSR. [A book] Vinogradov, N. V. (Editor)

579 pp. (1968) [Numerous ref. Ru] Moscow: Izdatel'stvo "Pishchevaya Promyshlennost"

This text-book covers the subject in 15 chapters, dealing with the characteristics and present structure of the management of the USSR food industry, the organisation of industrial planning and means of improving it, problems of concn., specialization, co-operation, integration, geographical location, financing, etc. The book is intended for use by students at Coll. and Univ. FL

328

[Credit and technical progress in the food industry.] Kredit i tekhnicheskii progress v pishchevoi promyshlennosti. [A book] Lavrushin, G.

59pp. (1968) [Ru] Moscow: Pishchevaya promyshlennost' Price 23 k.

This booklet written for technical economists in the food industry describes the part played by credits for initiating technological progress in

these enterprises. The principles and conditions of credits for basic capital investment, the organization of crediting costs for basic assets and the influence of credits for basic assets on the working results in the food industry are discussed. STI

329

Food marketing and distribution. [A book]
McLaughlin, D. J., Jr.; Mallowe, C. A. (Editors)
viii + 391pp. SBN 912016 08 06 (1971)
[Numerous ref. En] New York, USA: Chain Store
Publishing Corp. [Acad. of Food Marketing, St.
Joseph's Coll., Philadelphia, Pennsylvania, USA]

This book consists of articles that provide an insight into the structure of the food industry with emphasis on the interaction between the manufacturer, wholesaler, retailer and consumer. The book is divided into the following 10 chapters, each containing several articles: Focus on food retailing (pp. 1-70); The role of the wholesaler (71-113); New look in food retailing (114-149); Pricing and promotion (150-197); Marketing case studies (198-245); The role of the marketing man (246-286); Consumer behaviour (287-311); The food retailer and the consumer (312-355); Food marketing abroad (356-380); and Epilogue (381-386). Individual articles are: The place of food retailing in the economy (3-36); Concentration in food retailing, by H. W. Boyd Jr., H. J. Claycamp & R. E. Frank (37-47); The effect of federal regulatory policies on mergers in retail food distribution, by L. Glick (47-59); The grocery business (60-70); 25 years of wholesaling: a revolution in food wholesaling, by P. D. Converse (73-91); The "voluntary group" concept of food distribution, by J. Peck (91-96); New horizons for retailer-owned cooperatives, by R. O. Harb (97-101); A house divided (101-103); Management responsibilities facing the wholesale grocer, by W. Applebaum (103-113); The supermarket challenged!, by F. C. Allvine (116-131); Behind the new wave discount super revolution (131-139); The convenience store boom reflects food retailers' sensitivity to consumer needs, by J. S. Toothman (140-144); Bantam franchise boom - why? (144-149); Private branding by retailers (151-161); [continued in following abstr.] JA

330

Food marketing and distribution. [A book]
McLaughlin, D. J., Jr.; Mallowe, C. A. (Editors)
viii + 391pp. SBN 912016 08 06 (1971)
[Numerous ref. En]

[Continued from preceding abstr.] Price and quality comparisons between stamp and nonstamp food stores, by F. E. Brown & A. R. Oxenfeldt (162-169); Future for trading stamps and games, by F. C. Allvine (169-183); Comparative assortments of discount food stores and conventional supermarkets, by R. J. Minichiello (183-197); The marketing revolution, by R. J. Keith (200-205); Brief marketing history of the Jewel Tea Co., by J.

S. Wright (206-218); A&P finally waking up? (218-224); Green Giant entry into frozen food: the market research story, by R. E. Bengston (225-231); The ProTen case: role of marketing research in evolution of marketing strategy, by W. L. White (232-245); Marketing snags and fallacies, by L. Burnett (247-255); The most dangerous game in marketing (255-260); Role of the advertising agency in marketing planning - the touch of magic, by K. Runyon (261-267); Food store packages as consumers see them (268-276); Packaging and supermarkets: the package in the market place, by C. Kornblau (277-286); Discovering the 'Inner Jones', by E. Dichter (288-295); Foods and their motivations, by E. Dichter (295-298); Of men and motives, by P. D. Martineau (299-304); Behaviour patterns of supermarket shoppers, by B. L. Schapker (304-311); Do the poor really pay more for food?, by D. J. McLaughlin, Jr. & D. F. Dixon (313-320); Prices and margins in different income areas (321-328); The low-income consumer - a human problem and a selling problem, by D. S. Perkins (329-336); Business responds to consumerism (336-350);

JA

331

Food marketing and distribution. [A book]
McLaughlin, D. J., Jr.; Mallowe, C. A. (Editors)
viii + 391pp. SBN 912016 08 06 (1971)
[Numerous ref. En]

[Continued from preceding abstr.] Remarks before the Public Affairs Conference of the Grocery Manufacturers of America, by V. H. Knauer (351-355); The problem of development, by C. A. Mallowe (357-361); The growth of retailing in Europe, by M. Neumark (361-369); Migros: where culture competes with prices (370-372); Limitations of supermarkets in Spain, by J. R. Guerin (372-380); and Food distribution research approaches for the 1970's: food retailing beyond the supermarket, by D. I. Padberg (382-386). JA

PROCESSES AND EQUIPMENT

332

The technology of food preservation. [A book]
Desrosier, N. W.
2nd edition ix + 405pp. (1963) [Numerous ref. En]
Westport, Connecticut: AVI Publishing Co., Inc.
Price \$10.50 [Fair Lawn Res. Center, Nat. Biscuit Co., Fair Lawn, New Jersey, USA]

This revised 2nd edition is devoted to the fundamental principles of food preservation and to the application of these principles to the production of high quality food. Detection and control of food spoilage are considered. A selected bibliography is given at the end of each chapter. An alphabetical list of journals of interest to the food preservation technologist is presented at the end of the book. The following

chapters are included: 'Introduction to food technology', (pp. 1-26); 'Acceptable food to eat', (pp. 27-47); 'The refrigerated storage of perishable commodities', (pp. 48-90); 'Principles of food freezing', (pp. 91-122); 'Principles of food preservation by drying', (pp. 123-59); 'Principles of food preservation by canning', (pp. 160-238); 'Principles of food preservation by fermentation and pickling', (pp. 239-67); 'Preservation of food as sugar concentrates', (pp. 268-78); 'Preservation of foods with chemical additives', (pp. 279-312); 'Preservation of food with ionizing radiations', (pp. 313-65). VJG

333

[Electrophysical methods in the food industry.]

Elektrofizicheskie metody pishchevoi promyshlennosti. [A book]

Matov, B. M.; Reshet'ko, E. V.

124pp. (1968) [Ru] Kishinev, USSR: Izdat. Kartya Moldovenyatske. Price 33 k.

The application of electrophysical methods in the food industry is discussed from the view-point of the canning and wine-producing industries, the sugar industry, the milling and confectionery industry, the dairy industry, the meat and fish industries and the tobacco industry. STI

334

[Electrical equipment in the food industry.]

Elektrooborudovanie pishchevykh predpriyati. [A book]

Ivanov, A. A.

4th Edition 456pp. (1969) [80 ref. Ru] Kiev, USSR: Izdatel'stvo 'Tekhnika'

This textbook, designed for students of mechanics in technological institutes of the food industry, is divided into 4 sections: 'Electric drives' (pp. 11-198); 'Electrical equipment for special techniques and other requirements in the food industry' (pp. 199-278); 'Supply of electricity to food factories' (pp. 279-371); and 'Utilization of electrical equipment in food factories' (pp. 372-443). A subject index is included. HBR

335

Unit operations in food processing. [A book]

Earle, R. L.

xi + 342pp. (1966) [43 ref. En] Oxford, London &

Edinburgh: Pergamon Press Price 35s [Massey Univ. Manawatu, New Zealand]

This text-book for students of food technology discusses some principles of operation of chemical engineering processes under the headings:

'Introduction', (pp. 1-24); 'Fluid flow', (pp. 25-68); 'Heat transfer', (pp. 69-136); 'Drying', (pp. 137-66); 'Evaporation', (pp. 167-90); 'Contact equilibrium separation processes', (pp. 191-248); 'Mechanical separations', (pp. 249-82); 'Size reduction', (pp. 283-96); 'Mixing', (pp. 297-310); 'Some applications of process engineering in the food industry', (pp. 311-16). JN

336

[Electrical control and signalling systems in food factories.] Elektricheskie skhemy upravleniya i signalizatsii na predpriyatiyakh pishchevoi promyshlennosti. [A book]

Gannell', V. Ya.; Yastrazhembaskaya, I. D.

276pp. (1969) [25 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.89 rouble

337

[Handbook on cleaning of equipment and pneumatic transport in the food industry.]

Spravochnik po aspiratsii oborudovaniya i pnevmotransportu v pishchevoi promyshlennosti. [Book]

Donin, L. S.

247pp. (1972) [26 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya promyshlennost'. Price 1.02 r.

This book contains the following chapters: Air movement in pipelines (pp. 5-26); Dust, its characteristics and sources of formation (pp. 26-31); Cleaning parts (pp. 26-46); Systems of cleaning (pp. 46-59); Pneumatic transport (pp. 59-136); Air blowing machines (pp. 136-172); Air filters (pp. 172-196); Pneumatic dust collection (pp. 196-215); and Testing and use of cleaning systems and pneumatic transport systems (pp. 215-245). STI

338

Food processing plant. Vol. 1. [A book]

Slade, F. H.

xxiv + 381pp. (1967) [En] London, UK: Leonard Hill Books Price £6.00

The object of this book and the second volume [see following abstr.] is to present in a concise form important features embodied in the design, construction and application of food processing equipment. It is aimed primarily at food manufacturers. The book is extensively illustrated with photographs and diagrams. Chapters are: Introduction, plant layout, mechanical-handling plant (pp. 1-39); Mechanical-handling plant (continued), transfer of fluids (pp. 40-76); Automatic control, automation (pp. 77-110); Preparation plant - fruit, vegetables, and meat (pp. 111-141); Particle size reduction, disintegration plant, types of disintegrators (pp. 142-173); Separation plant, size separation, separation by shape and colour, separation of foreign particles, dust collectors (pp. 174-210); Separation plant (continued), separation of solids from liquid suspensions, solid-liquid and liquid-liquid separations (pp. 211-246); Evaporation plant, evaporation, types of evaporator, ancillary equipment, operation and maintenance (pp. 247-286); Drying plant, indirect and direct driers, freeze and accelerated freeze driers (pp. 287-334); and Drying plant (continued), pneumatic driers, fluid bed driers, spray drying (pp. 335-370). An 11-pp subject index is included. JA

339

Food processing plant. Vol. 2. [A book]

Slade, F. H.

xiv + 434pp ISBN 0 249 38838 3 (1971) [En]
London, UK: Leonard Hill Books Price £7.75

Factory construction, plant layout and ancillary equipment required for processing a wide range of products are covered under the following chapter headings: Automatic feeders, blenders and mixers, emulsifying mills, homogenizers (pp. 1-49); Forming and assembly equipment (pp. 50-87); Bake ovens and frying plant (pp. 88-125); Further heat-using equipment, boiling plant, retorts and retorting, hydrostatic sterilizers (pp. 126-164); Continuous heat exchange plant, pasteurization (pp. 165-195); Refrigeration and air conditioning - processing and storage (pp. 196-251); Refrigeration and air conditioning - plant and store design and layout, refrigerated transport (pp. 252-290); Filling, closing, labelling (pp. 291-344); Packaging (pp. 345-375); and Ancillary plant and other factory facilities (pp. 376-420). The book is well illustrated with photographs and diagrams and contains a 14-pp. subject index. JN

340

[Steam-heated conveyor-belt driers in the food industry.] Parovye lentochnye sushilki pishchevoi promyshlennosti [A book]

Volik, N. D.; Nasakin, A. N.

3rd edition 63pp. (1970) [Ru] Moscow, USSR:
Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.17 rouble

This booklet, intended for technical and administrative staff of vegetable drying plants, consists of the following chapters: General concepts of theory and practice of drying (pp. 5-21); Operational principles and construction of multi-belt steam heated driers (pp. 22-32); System of air passage through drier (pp. 32-40); and Recommendations on correct use of driers (pp. 40-53). Tables and calculations are presented in 4 appendices (pp. 54-61). SKK

341

[Technical calculations in the preservation of foods.] Tekhnologicheskie raschety po konservirovaniyu pishchevykh produktov. [A book]

Yastrebov, S. M.

150pp. (1969) [17 ref. Ru] [Moscow, USSR:
Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 0.53 rouble

This is a textbook approved by the Ministry of Higher and Middle Specialist Education of the RSFSR, and is designed to give the basic mathematics required for control and supervision of the various technological processes involved in the canning and bottling industry. Aspects covered include calculating output in conventional units, determination of standards for raw material allocation, ingredient distribution, calculation of steam requirements, control of stocks in hand, estimation of package requirements, and specific calculations involving individual types of food. HBr

342

[Mechanization of loading and unloading in the food industry.] Mekhanizatsiya pogruzochno-razgruzokhnykh rabot v pishchevoi promyshlennosti. [A book]

Bursian, V. R.; Levachev, N. A.

332pp. (1971) [43 ref. Ru] Moscow, USSR:
Izdatel'stvo "Pishchevaya Promyshlennost". Price 1.02 r.

This book deals with home and foreign experience in mechanical handling of raw materials and finished products in the food industry. Constructional and economic problems are discussed. The 2 sections of the book are entitled: mechanical handling of individual units; mechanical handling of bulk material. STI

343

[Automation control in the chemical and food industries.] Regulace v chemickem a potravinarskem prumyslu. [A book]

Soukup, J.

114pp. (1966) [5 ref. Cs] Prague, Czechoslovakia:
CVUT. Price 8.50 Kcs.

This book deals with general problems of automation in the chemical industry, including economic problems, level measurement, processing of intake signals delivered by dials, central elements, and valves, with examples of the mathematical description of automatically controlled equipment. STI

344

[Use of silicones in food industry.] Silikony w przemyśle spożywczym. [A book]

Maciejewski, J.

72pp. (1969) [66 ref. Pl] Warsaw, Poland:
Wydawnictwa Naukowo-techniczne. Price 10 zł

The book is intended for technicians engaged in the food industry and more especially for those engaged in designing machinery and equipment used in the food industry. The main chapters deal with: chemistry of silicones; possibilities of application of silicones in the food industry; and a list of silicones manufactured in Poland. ST

345

[Handbook on the manufacture of food preserves.] Spravochnik po proizvodstvu konservov. [A book]

Rogachev, V. I.

654pp. (1971) [21 ref. Ru] Moscow, USSR:
Pishchevaya Promyshlennost'. Price 2.19 roubles

This third vol. of a handbook comprising 4 vol. deals with meat, fish and dairy preserves. Requirements for raw material are dealt with, together with modern technological processes and production control (particularly the chemical and microbiological properties of products). The 1st vol. deals with general questions of food preservation, machinery and equipment, the 2nd vol. describes packaging problems, and the 4th vol. discusses the manufacture of food preserves from vegetables and fruit. STI

346

Manual for preservation technologists.] Rukovat konzervarenskeho technologa. [A book]
Kascak, J.; Pribela, A.
412pp. (1969) [35 ref. Sk] Bratislava,
Czechoslovakia: Slovenska Spolocnost pre
Racionalnu Vyzivu.

This book contains the following chapters: Raw and ancillary materials used in food preservation and their chemical composition; A short review of food preservation; Protection against undesirable activity of microorganisms; Preparatory work; Production of semi-finished foods; Finished products; Quality control of raw materials and finished products; Packaging and packaging materials; Sanitation and its importance; Size of production plants; and the role of workshop heads in production management. STI

347

Principles of farm machinery. [Book]
Kepner, R. A.; Bainer, R.; Barger, E. L.
2nd edition xi+486pp. ISBN 0 87055 124 8
(1972) [many ref. En] Westport, Connecticut,
USA: AVI Publishing Co. Inc. Price \$16.00 (US),
\$17.00 (Foreign) [Dept. of Agric. Eng., Univ. of
California, Davis, USA]

This 2nd edition of the book, first published in 1955, has been rewritten and updated. 4 chapters have been deleted and several new ones added. The subject of farm machinery is covered from the engineering viewpoint, with emphasis on functional requirements and principles of operation for the basic types of machines used in cultivation and harvesting. There are 21 chapters; those of interest to food scientists are: Grain and seed harvesting (pp. 369-402, 49 ref.); Corn picking and shelling (pp. 403-414, 19 ref.); Root crop harvesting (pp. 430-442, 20 ref.); and Fruit and vegetable harvesting and handling (pp. 443-466, 33 ref.).
A

348

Use of secondary heat in the food industry.]
spol'zovanie vtorichnogo tepla v pishchevoi
promyshlennosti. [Book]
Stabnikov, V. N.; Boichenko, N. G.
151pp. (1972) [71 ref. Ru] Moscow, USSR,
Pishchevaya Promyshlennost. Price 0.53 rouble

The book contains the following chapters:
Secondary energy sources (pp. 4-15); Evaporation of solutions using secondary steam (pp. 16-48); Utilization of hot gases and hot fluids in the food industry (pp. 48-60); Utilization of boiler house gases for drying purposes (pp. 60-89); Utilization of the heat of baking gases in the baking industry (pp. 89-94); Utilization of the heat from boiling and hot water (pp. 94-104); Utilization of heat from products and wastes (pp. 104-113); and New prospective methods of utilizing waste heat in the food industry (pp. 113-148). STI

349

The home book of food freezing. [A book]
Cox, P. M.
352pp. ISBN 0 571 09113 X (1972) [En]
London, UK: Faber and Faber. Price £2.75

350

[Home preservation of foodstuffs.] Konzervovani potravín v domácnosti. [A book]
Balastik, J.
303pp. (1969) [Cs] Prague, SNTL. Price 26 Kcs

Contents include: importance and utilization of fruit for preserving purposes; causes of undesirable changes and spoilage of food, and their prevention; sweetened fruit and vegetables; jams and marmalades; fruit jellies and plum jams; fruit pastes and cheeses; fruit and vegetable puree and vegetable juices; fruit syrups; fruit and grape wines; ciders; dried fruit; tinned vegetables; tinned mushrooms; tinned meat; egg preservation. STI

351

The use of centri-therm, expanding-flow and forced-circulation plate evaporators in the food and biochemical industries.
Hallström, B. (United Nations Industrial Development Organization)
Food Industry Studies ID/SER.I/1 51pp. (1969) [En]
[Alfa-Laval AB, Lund, Sweden]

This monograph, intended for food-processing industries in developing countries, describes and compares the characteristics of the title evaporators. Accessory aroma-recovery equipment is also described. Applications discussed include those involving dairy products, fruit juices, brewery products, starch derivatives, glucose and sugar solutions, coffee and tea extracts, thickeners, glue and pectin. Pre-investment data for 2 fruit-juice evaporation plants are presented. 12 specialized terms are listed and described. JN

352

[Manual for ventilation, air conditioning and heating in food factories.] Spravochnik po ventilyatsii, konditsirovaniyu i teplosnabzheiyu predpriyatii pishchevoi promyshlennosti. [A book]
Donin, L. C.
286pp. (1968) [Ru] Moscow: Pishchevaya promyshlennost' Price 1 r. 31 k.

Temperature differences between internal and external air, heat losses through walls and insulation of equipment and piping are discussed, together with chapters on ventilation and ventilation equipment and details of constructional requirements and operation. STI

353

[Intensification of technological processes in the food industry using low-frequency vibrations.] Intensifikatsiya tekhnologicheskikh protsessov v pishchevoi promyshlennosti pri pomoshchi nizkочастотnykh kolebaniy. [A book]
Burenkov, N. A.
192 pp. (1969) [111 ref. Ru] Kiev, USSR: Tekhnika. Price 62 k.

This book, written for engineers, technicians, builders and designers in the food ind., covers: vibrations and pulsations in physico-mechanical processes; types of vibrators and pulsators; and intensification of exchange processes and mechanical and hydromechanical processes (including centrifugation, mixing and washing of foods). STI

354

[Ultrasound and its application in the food industry.] Ultradźwięki i ich zastosowanie w przemyśle spożywczym. [A book]
Bezzubov, A. D.; Garlinskaya, E. I.; Frydman, W. M.
191pp. (1968) [Pl] Warsaw, Państwowe Wydawnictwo Przemysłu Lekkiego i Spożywczego. Price 22 zł.

The book is intended for technical personnel in the food industry and gives a survey of the basics of ultrasound application, the sources of ultrasound and the method of utilizing the process in the food industry. Chapters of the book deal with the following problems; ultrasound vibration, and methods of generating and measuring ultrasound waves; dispersion, emulsification, mixing and homogenization; crystallization, filtration, prevention of scale formation; diffusion and extraction, drying, coagulation and sterilization, application of ultrasound in the meat, poultry, dairy, fish, bakery, yeast, sugar and confectionery industries, and in distilleries, breweries and the preserve industry; instruments used for control and measurement of the physico-chemical processes and their parameters in the food industry. STI

355

[Equipment in food industry plants. Vol. 2.] Oborudovanie pishchevoi promyshlennosti. Tom 2. [Book]
Anon.

214pp. (1972) [many ref. Ru] Moscow, USSR, VINITI. Price 1.22 roubles

The book contains a collection of papers concerning the development of the food industry. The individual papers are entitled: Some problems concerning the development of fishing; Industrial hydroacoustics; Modern fish processing machinery; Cryogenic techniques and prospects of their application in the fish processing industry. [See also FSTA (1972) 4 4R180.] STI

356

[Collection of papers on the mechanization and

automation of production processes in the food industry.] Sbornik statei po mekhanizatsii i avtomatizatsii proizvodstvennykh protsessov v pishel'evoi promyshlennosti. [Book]
Kolchin, A. I.; Lapshin, A. A.; Stepanov, I. A. (Editors)

258pp. (1970) [Ru] Leningrad, USSR, Leningradskii Tekhnologicheskii Institut Kholodil'noi Promyshlennosti.

This publication includes the following papers: New type of container for the transport of products in returnable glass containers (bottles), by A. A. Lapshin, I. A. Stepanov, B. A. Pavelko & L. M. Mikhailov (pp. 10-17); Comparative characteristics of the currently used suspension conveyors, by L. V. German (pp. 47-76); Intensity of flow through clearances of the helical channel in butter transmutators, by L. K. Nikolaev (pp. 149-153); Deodorization of cream for butter manufacture, by A. A. Lapshin & V. A. Berezko (pp. 161-174); Optimal mechanical treatment of dough during mixing, by I. B. Kornil'ev & I. E. Gruzdev (pp. 189-198); New process for the manufacture of dragees with vitamins, by I. S. Pust'nnikov, A. A. Lapshin & I. A. Stepanov (pp. 199-207); Problems of the continuous manufacture of begel dough, by I. B. Kornil'ev & I. E. Gruzdev (pp. 208-219); Analysis of formulae for calculating aerodynamic resistance in skimming bowl of separators, by G. F. Abolmasov (pp. 235-255). FL

357

[Food processing equipment.] Potravinarske stroje a zarizeni. [Book]

Havelka, K.; Lukavsky, J.; Novak, V.; Sigl, F.; Zvonicek, J.

366pp. (1972) [170 ref. Cs] Prague, Czechoslovakia, SNTL. Price 42 Kcs

This book presents a review of designs and use of apparatus and individual elements which are found in all food machines. It includes the following chapters: Principles of hygienic food production; Food machinery design; Sanitary pipelines and fittings; Drivers and mechanisms in food processing machines; Frames and mounting of shafts; Packs, pads and stirring devices; and Construction of apparatus and calculations. STI

358

[Food technology.] Ogolna technologia zywnosci. [Book]

Pijanowski, E.; Dluzewski, M.
597pp. (1972) [many ref. Pl] Warsaw, Poland, Wydawnictwo naukowo-techniczne. Price 72 zł.

This book contains the following chapters: Introduction to food technology (pp. 17-46); Composition of food (pp. 46-70); Problems of quality, and tasks of the food industry (pp. 70-89); Operations and processes in food processing (pp. 89-108); Mechanical operations in food processing (pp. 108-156); Thermal processes in food processing (pp. 156-229); Electronic heating (pp.

229-237); Applications of diffusion in food processing (pp. 237-268); Physical and chemical processes (pp. 268-286); Chemical processes (pp. 286-305); Biotechnical processes (pp. 305-343); Food preservation (pp. 349-359); Food chilling and freezing (pp. 359-384); Appertization (pp. 384-426); Osmotic preservation methods (pp. 426-449); Food dehydration (pp. 449-480); Chemical preservation of foods (pp. 498-525); and Unconventional methods of preservation of food (pp. 525-573). STI

359

The fundamentals of food engineering. [A book] Charm, S. E. 2nd edition xv + 629pp. ISBN 0 87055 094 2 (1971) [Numerous ref. En] Westport, Connecticut, USA; AVI Publishing Co., Inc. Price \$29. (US) \$30. (Foreign) [Tufts Univ. School of Med., Boston, Massachusetts, USA]

Common relationships between basic engineering principles and the fundamentals of food processing are presented, with realistic problems pertaining to foods and their biochemistry. The subject is covered under the headings: An introduction to food engineering; Material, and energy balance; Flow of fluid food; Transfer of heat; Methods for thermal process evaluation; Freezing and thawing of foods; Evaporation; Dehydration of foods; Freeze-drying; Distillation; Extraction; Mass transfer; Filtration and centrifugation; Strength of food materials and equipment; and Kinetics of biological reactions. An appendix contains food engineering data. A subject index is included. JN

360

General food technology. [Ogólna technologia żywności.] [A book] Pianowski, E. 180pp. (1967) [Numerous ref. Pl] Warsaw, Poland: WNT. Price 60 zł.

This book deals with general aspects of food processing, chemical composition of food, individual methods of food processing, machines and equipment used, with information on individual methods of food preservation including the most up-to-date methods. STI

61

Survey of food technology. (2nd completed edition.) [Zarys technologii przemysłu spożywczego.] [A book] Sosnowski, T. 400pp. (1970) [Pl] Warsaw, Poland: Wydawnictwo Naukowo-techniczne. Price 105 zł.

The book includes general information on the industry and a description of technological processes applied in individual food industries. It also deals with water, water treatment, heat and heat generators and power generation in the food industry. STI

362

Encyclopedia of food technology and food science series. Volume 1. Encyclopedia of food engineering. [A book] Hall, C. W.; Farrall, A. W.; Rippen, A. L. vii + 755pp. ISBN 0 87055 086 1 (1971) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc. Price \$52.00 (USA) \$53.00 (Foreign) [Coll. of Eng., St. Univ., Pullman, Washington, USA]

The purpose of this book is to bring together in one source, a useful collection of technical information relating to the application of modern engineering equipment and methods to the food processing industry. Subject headings, which are arranged alphabetically, have been selected on the basis of usage in the field of food processing. Headings are cross-referenced, a subject index is included and literature references are cited after most headings. The encyclopedia should prove useful to equipment designers, food plant operators and managers, students and regulatory personnel. The emphasis is on equipment and facilities used in food handling, manufacture and transport, with particular attention being paid to fluid products. JA

363

[Engineering and apparatus in the food industry.] Inżynieria i aparatura przemysłu spożywczego. [A book]

Tuszynski, W.; Budny, J.; Kleszczewski, M. 466pp. (1971) [59 ref. Pl] Warsaw, Poland: Wydawnictwa Naukowo-techniczne. Price 43 zł.

This handbook contains the following chapters: Principal dynamic processes; Heating; Heat exchangers; Boiling and concentration processes; Pressure; Sorption; Distillation; Ventilation; Climatisation; and Drying, measuring and automation apparatus. STI

364

Food engineering operations. [A book] Brennan, J. G.; Butters, J. R.; Cowell, N. D.; Lilly, A. E. V. xii + 443pp. (1969) [Numerous ref. En] Amsterdam, London & New York: Elsevier Publishing Co. Price 110s. [Nat. Coll. of Food Technology, Univ., Reading, England]

This undergraduate text-book discusses the major operations of food engineering and basic theory relevant to the processes and equipment described. Chapters included are: 'Raw material and the process' (pp. 3-10); 'Cleaning of raw materials' (pp. 11-23); 'Sorting and grading of foods' (pp. 24-42); 'Size reduction and screening of solids' (pp. 45-67); 'Mixing and emulsification' (pp. 68-98); 'Filtration and expression' (pp. 99-127); 'Centrifugation' (pp. 128-49); 'Crystallization' (pp. 150-66); 'Heat processing' (pp. 167-86 and 189-217); 'Evaporation' (pp. 218-43); 'Dehydration' (pp. 244-89); 'Freezing' (pp. 290-308); 'Irradiation' (pp. 309-19); 'Food storage' (pp. 320-38); 'Plant hygiene - hygienic design, cleaning and sterilizing' (pp. 341-61); 'Water

supplies and waste disposal' (pp. 362-82); 'Materials handling' (pp. 383-416). The book contains many illustrations and an 8 pp. subject index. JN

365

[Water and effluent in the food industry.] Woda i scieki w przemyśle spożywczym. [A book] Miskiewicz-Bogusławska, Z.; Zbikowska, A. 357pp. (1969) [Numerous ref. Pl] Warsaw, Poland: WNT. Price 73 (Złoty)

The requirements of water used in food industry are discussed, together with problems of control and disposal of waste waters in individual branches of the food industry. The main chapters deal with: characteristics of waste waters; requirements of water used in food processing; physical and chemical properties of water and waste waters; relation between water used in food processing and waste waters; waste water purification methods and waste water disposal methods; quantity and quality of waste waters and their purification and disposal in individual branches of the food industry; utilization of waste water and waste products in the food industry; and legal requirements. STI

366

[Graphical method of calculating equipment for food industries.] Graficheskie metody raschetov oborudovaniya pishchevykh proizvodstv. [A book] Sitnikov, E. D. 195pp. (1969) [22 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.56 rouble

The book discusses, on the basis of practical examples, methods of determination of capacities required for processing machinery and conveyors at typical food industry plants. Special attention is paid to the requirements of individual branches of the food industry concerning properties of constructional materials for individual machines. STI

367

[The economics and design of baking ovens and candy factories.] Raschet i proektirovanie pechei khlebopekarnogo i konditerskogo proizvodstva. [A book] Mikhelev, A. A.; Itskovich, N. M. 486pp. (1968) [36 ref. Ru] Moscow, USSR: Pishchevaya promyshlennost'. Price 1r. 20 k.

Topics covered include: fundamentals of heat transfer in baking ovens and candy factories; heat conductivity; heat transfer; radiation; fundamentals of energy and moisture effects during baking; reactions occurring in bread dough during baking; temp. ranges in ovens; combustion temp.; temp. range in the Perkins baking system; fundamentals of the construction of conveyor ovens for bread and review of the different types; heating during initiation of baking;

construction of ovens; modern bread baking ovens in the USSR and other countries with data on their capacities and applicability; mechanics of oven degassing; assessing efficiency of ovens. STI

368

[Foam plastics in the meat and dairy industry.] Penoplasicheskie massy v myasnoi i molochnoi promyshlennosti. [A book] Lenilkin, A. N.; Nozdryn, S. I.; Sokol, M. G. 203pp (1969) [21 ref. Ru] Moscow: Izdatel'stvo 'Pishchevaya Promyshlennost' Price 51 kop.

Chapter 1 of this compact book, designed primarily for those engaged in the engineering aspects of the meat and dairy industry, is entitled 'Thermal insulation of equipment' (pp. 5-20), and gives the basic mathematics of insulation. Chapter 2, 'Manufacture and properties of foam plastics' (pp. 21-75), covers the plastics in current use in foam form in the Soviet meat and dairy industry, viz. polystyrene, PVC, phenol formaldehyde resins, urea formaldehyde resins, polyurethanes, silicone resins and polyeoxy resins. Chapter 3, 'Use of foamed plastics' (pp. 82-179), includes sections on insulation of pipelines and refrigeration equipment, control aspects and repair and maintenance. The final chapter, 'Economics of foamed plastics application and production' (pp. 180-201), discusses this aspect from various viewpoints, including capital investment, labour requirements for foam plastics production, cost price, ancillary process costs, labour requirements and costs of foam plastics utilization, and effective life of plastics foams. HBr

369

[Applications of infrared heating in the food industries.] Promieniowanie podczerwone w przemyśle spożywczym. [A book] Ginzburg, A. S. 441pp. (1969) [Numerous ref. Pl] Warsaw, Poland: WNT. Price 57 zł.

The main chapters deal with: theoretical principles of heating and drying by means of IR rays; heating and drying techniques; drying and heat processing of food products by IR rays; baking by IR rays. STI

370

Application of infra-red radiation in food processing. [A book] Ginzburg, A. S.

xii + 412pp. (1969) [Numerous ref. En] London: Leonard Hill Price 168s

This 1st English edition, translated from Russian by A. Grochowski (no original publication details given), covers the subject under 4 headings: 'Theoretical principles of heating and drying using infra-red radiation', (pp. 1-76); 'Technology of heating and drying by infra-red radiation', (pp. 77-173); 'Drying and thermal

treatment of food products by infra-red rays', (pp. 174-309); 'Infra-red baking', (pp. 310-88). The text-book, one in a chemical and process engineering series, edited by I. L. Hepner, contains many detailed diagrams, tables, charts and methods of calculation. JN

71

Evaporation processes in the food industry.]

Protsessy vyparivaniya v pishchevykh proizvodstvakh. [A book]
Szenes, E.; Nadaban, P.
111pp. (1969) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.63 rouble

This is a translation into Russian from the original Hungarian book, published by Műszaki Könyvkiado, Budapest, 1964. Chapters are: Fundamentals of heat exchange and evaporation plant (pp. 13-78); Evaporation plant (pp. 78-149); Heat requirements of 2-stage evaporator for tomato juice (pp. 150-63); Automation of evaporators (pp. 163-83); Materials for evaporators (pp. 183-93); Economics of evaporation plant (pp. 194-210); Use of evaporation processes in the food industry [covers sugar, tomato concentrates, pepper concentrate, fruit juices, aromatic compounds, jams, milk, starch, confectionery items, meat concentrates, blood, gelatin and glycerin] (pp. 210-82); and Freeze concn. (pp. 282-309). A 3-pp. bibliography is included. HBr

372

[Technology of food concentrates production.]
Technologia koncentratow spozywczych. [A book]
Pazola, Z.; Piekarz, J.; Prominski, W.; Swierczynski, A.; Waczynski, R.; Wojtkowiak, S.
341pp. (1970) [Numerous ref. Pl] Warsaw, Poland: Wydawnictwo Naukowo-techniczne. Price 54 zl.

Descriptions are given of production processes for individual types of food concentrates, raw materials used and machinery and equipment. The 1st part deals with general principles of food concn., especially main food drying techniques including modern methods. The other parts deal with individual groups of food concentrates including baby food, special vitamin concentrate and coffee concentrates. STI

373

Spray drying.

Masters, K.
xxxv + 668pp. ISBN 0 249 44093 8 (1972) [520 ref. En] London, UK, Leonard Hill Books Price £13.00

This comprehensive up-to-date book covering all aspects of spray drying consists of 6 sections. The first is concerned with basic drying principles and the second with the process stages (atomization, drying of droplets and separation and recovery of dried product from air). Section 3 and 4 deal with operational practice and auxiliary equipment and

section 5 with applications of spray drying in various industries, including the food industry (milk products and eggs; beverages, flavouring compounds, meats and proteins from vegetable sources; fruits and vegetables; and carbohydrates), pharmaceutical and biochemical industry (enzymes, yeast, vitamins, pharmaceutical gums etc.), and the offal and fish industries (slaughter house by-products and fish wastes). The final section contains a number of appendices, references and subject and author indexes. The book includes a large number of illustrations and an extensive list of references. FL

374

[Drying plants.] Susarny. [A book]

Zvonecek, J.
102pp. (1969) [Cs] Prague, Czechoslovakia: CVUT. Price 10.0 Kcs.

This book classifies different drying plants and describes the design and principles of construction of individual types of driers used in the chemical and food industries. Numerous graphs and drawings are included. STI

375

Practical dehydration. [A book]

Greensmith, M.
vi + 174pp. SBN 900397 03 0 (1971) [En] London, UK: Food Trade Press Ltd. Price £5.00

This book is aimed primarily at personnel directly involved with dehydration processes rather than at chemists. Chapters are: Origins, growth and potential of dehydration (pp. 3-10); Factory organization (pp. 11-28); Preparation plant (pp. 29-47); Dryers (pp. 48-73); Dehydration of potato products (pp. 74-88); Dehydration of vegetables (pp. 89-124); Dehydration of fruits (pp. 125-133); Dehydration of meat (pp. 134-138); The formulation of dehydrated soup (pp. 139-142); Selection, packaging and storage (pp. 143-156); Quality control (pp. 157-162); and The economics of dehydration (pp. 163-170). A large number of photographs of plants and equipment is included and also a subject index. JA

376

[Problems of drying in the food and agricultural industries. Proceedings of a conference held in Piestany, Slovakia, 15th and 16th Oct. 1970.]
Problematika susenia v potravinarskom priemysle i polnohospodarstve. [Conference proceedings]
Anon.

222pp. (1971) [Sk] Bratislava, Czechoslovakia: Ministerstvo polnohospodarstva a vyzivy.

The following papers are included: Opening addresses; Present developments in drying theory and their application to drying practices; Present trends and modern equipment for drying colloidal capillary structure porous materials; Present

situation and perspectives for the manufacture of drying equipment for food and agricultural industries in Czechoslovakia; Bioengineering aspects of food and agricultural products drying; Foam drying of foods; Fluidization drying of foods; Technology and equipment for fruit and vegetable drying plants; Development of continuous driers for atypical materials; Expansion drying; Microbiological problems in food drying; Drying problems in canning and distillery industries; Microbiological problems of dried foods; Drying in the dairy industry; Utilization of drying processes in the poultry industry; Potato drying; Drying in the starch industry; and Packaging of dried foods. STI

377

Freeze-drying of foods. [A book]

King, C. J.
86pp. ISBN 0 408 70189 7 (1971) [268 ref. En]
London, UK: Butterworth & Co. (Publishers) Ltd.
Price £5.00 [Dept. of Chem. Eng., Univ., Berkeley, California, USA]

This book originally appeared as an article in CRC Critical Reviews in Food Technology [see FSTA (1971) 3 3E113]. The purpose of the book is to give a general review of freeze-drying of foods and to update previous reviews in this field.

Chapters are: Physical mechanism of freeze-drying (pp. 10-18); Drying rates (pp. 18-35); Influence of freezing conditions (pp. 35-40); Quality factors as influenced by processing conditions (pp. 40-54); Processing approaches (pp. 54-70); Quality control (pp. 70-72); and Additional developments (pp. 72-76). JA

378

[Freeze-drying of food products.] Suszenie sublimacyjne produktow spozywczych. (Translation from Russian). [A book]

Gujgo, E.; Zhuravska, N. K.; Kaucheszewili, E. I.
278pp. (1968) [Pl] Warsaw: WPL Price 51 zł.

Freeze-drying theory is explained. Heat transmission during freeze-drying and technological equipment used in freeze-drying of food products are described. The book is meant for scientific and research workers, engineers, technicians and students. STI

379

The almanac of the canning, freezing, preserving industries. [A book]

Edward E. Judge & Son
546pp. (1971) [En] Westminster, Maryland, USA: Author Price \$10.00

This 56th annual compilation of basic references for the canning, freezing, preserving and allied industries is arranged in the following sections: Personnel, addresses, telephone numbers (pp. 7-28); Food laws and regulations (pp. 29-78); Labelling and packaging (pp. 79-126); FDA standards of identity, quality, fill (pp. 127-221);

Quality grade standards (pp. 222-332); Raw products (pp. 333-372); Pack statistics, U.S. (pp. 373-439); Canned food prices (pp. 440-448); International trade and world packs (pp. 449-465); Appendix (pp. 466-480); Buyers guide, machinery, supplies, services (pp. 481-542); Indexes (pp. 543-546). JN

380

Progress in refrigeration science and technology.

Volume I. Progres dans la science et la technique du froid. Volume I. [Book]

Pentzer, W. T. (International Institute of Refrigeration) (Editor)
808pp. ISBN 0 87055 128 0 (1971, publ. 1973)
[many ref. En & Fr] Westport, Connecticut 06880, USA, AVI Publishing Co. Inc. Price \$25 (USA) \$26 (Foreign)

The Proceedings of the XIII International Congress of Refrigeration held in Washington DC in 1971 have been organized into four volumes. Volume I deals primarily with low temperature applications and contains papers on cryophysics and cryoengineering and applications of refrigeration to chemical, civil and industrial engineering. Relevant papers will be individually abstracted in FSTA. [See also following abstr.] AA

381

Progress in refrigeration science and technology.

Volume II. Progres dans la science et la technique du froid. Volume II. [Book]

Pentzer, W. T. (International Institute of Refrigeration) (Editor)
830pp. ISBN 0 87055 129 9 (1971, publ. 1973)
[many ref. En & Fr] Price \$25 (USA) \$26 (Foreign)

This volume consists of papers on heat and mass transfer, and refrigeration machinery. Relevant papers will be individually abstracted in FSTA. [See also preceding and following abstr.] AA

382

Progress in refrigeration science and technology.

Volume III. Progres dans la science et la technique du froid. Volume III. [Book]

Pentzer, W. T. (International Institute of Refrigeration) (Editor)
990pp. ISBN 0 87055 130 2 (1971, publ. 1973)
[many ref. En & Fr] Price \$25 (USA) \$26 (Foreign)

This volume covers the refrigeration of perishables, cryobiology and freeze drying, and cold storage facilities. Relevant papers will be individually abstracted in FSTA. [See also preceding and following abstr.] AA

383

Progress in refrigeration science and technology.**Volume IV.** Progres dans la science et la technique du froid. Volume IV. [Book]

Pentzer, W. T. (International Institute of Refrigeration) (Editor)

704pp. ISBN 0 87055 131 0 (1971, publ. 1973)

[many ref. En & Fr] Price \$25 (USA) \$26 (Foreign)

This volume contains papers on air conditioning, and refrigerated transport by land and sea.

Relevant papers will be individually abstracted in FSTA. [See also preceding abstr.] AA

384

[Refrigeration technology and techniques.]

Kholodil'naya tekhnika i tekhnologiya. [Book]

USSR, Ministerstvo Vysshego i Srednego Obrazovaniya

86pp. (1972) [many ref. Ru] Kiev, USSR, Izdatel'stvo Tekhnika. Price 0.73 rouble

The book comprises a collection of papers on research in the sphere of construction and utilization of freezing and deep-freezing machines, air conditioning, food freezing technology and the use of cold in various industrial branches. The following papers deal with foods: Intensification of the fruit freezing process (pp. 80-83); and Utilization of climate characteristics for air conditioning in fruit warehouses (pp. 83-86). STI

385

[Refrigeration of agricultural products.]

Chlodnictwo produktow rolnych. [A book]

Cymer, T.; Rogozinski, S.

202pp. (1969) [Pl] Warsaw, Poland: PWRiL. Price 20 zl

The book deals with the importance of refrigeration in agriculture. It includes the following chapters; Refrigerated techniques in storage, transport and processing of fruit and vegetables; Losses during storage in winter; Refrigerated transport methods and equipment; Ventilation of storage areas; Storage of fruit and vegetables in food plants; Cooling of milk; Cold storage and handling of eggs; and refrigeration techniques during reloading of fresh fish. STI

386

[Cooling technique and technology.] Kholodil'naya tekhnika i tekhnologiya. [A book]

Anon.

115pp. (1969) [Ru] Kiev, USSR: Tekhnika.

Price 1 r 16 k

This collection includes results of the following research work conducted in the refrigeration industry: Application of auxiliary mixtures intended to increase the limit of the heat circuit employed in refrigeration equipment; Oscillographic investigation of an asynchronous compressor run by an azeotropic mixture; A method of accelerating the output of small

hermetic refrigeration compressors; Absorption refrigerators; Heat resorption ammonia pump; Prospective application of pneumatic cooling equipment in air conditioning systems; Test results of a low-consumption centrifugal compressor run on freon; Investigation of the gas throughflow in wheel-type centrifugal compressors; Apparatus used for the investigation of 2-phase flows; Results with the application of a protective chamber for frozen meat; Use of air-cooled condensers in large ammonia refrigerators; and Study of the degree of humidity during the ventilation of washed beet. STI

387

Cold and freezer storage manual. [A book]

Woolrich, W. R.; Hallowell, E. R.

vii + 338pp. ISBN 0 87055 074 8 (1970) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc. Price \$21.50 (US) \$22.50

(Foreign) [Dept. of Mechanical Eng., Univ., Austin, Texas, USA]

This manual of storage practice, design criteria and miscellaneous information is intended to serve as a guide to anyone interested in cold storage design. Various facets of design and operating procedures common to most storage warehouses are explained in simple terms. The book is divided into 3 sections: Principles of refrigeration (pp. 1-40), Warehouse construction and equipment (pp. 41-211), and Warehouse and freezer management and use (pp. 212-310); each section contains several chapters. Chapters in the 3rd section include: The rise and expansion of the refrigerated food industry; Meat, poultry and fish cold storage and freezer storage rooms; Pear, apple and grape storage rooms; The storage of tropical and semi-tropical fruits and vegetables; and Tree nuts and peanut cold and freezer storage. Appendices are: Definitions of terms commonly used in refrigeration and Useful conversion factors. JA

388

[Handbook of food freezing.] Spravochnik po proizvodstvu zamorozhennykh produktov. [A book]

Burmakin, A. G.

303pp. (1970) [Numerous ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyslennost. Price 1.47 roubles

This book contains basic information on food freezing technology, quick freezing of fruit and vegetables and freezing technology of convenience foods. Technological equipment and measuring and control apparatus are described. Chemical, microbiological and sensory control of production; problems of packaging; hygiene and safety of labour transportation and marketing of quick frozen foods are dealt with. STI

389

[Refrigeration technique.] Chladici tekhnika. [A book]

Dvorak, Z.
214pp. (1971) [Cs] Prague, Czechoslovakia: SNTL.
Price 20 Kcs

This handbook for university students contains the following chapters: Introduction, covering history and present practices in Czechoslovakia (pp. 11-17); Theory of cooling circuits (pp. 20-61); Properties of cooling and heating media (pp. 64-84); Equipment using steam (pp. 84-149); Design of cooling equipment (pp. 149-167); and Utilization of cooling in different branches of the food industry. STI

390

[Automation of cooling and refrigerating plants.]
Skhemy avtomatizatsii kholodil'nykh ustanovok
proizvodstvennykh i razpreditel'nykh
kholodil'nikov. [A book]

Anon.
58pp. (1970) [Ru] Moscow, USSR: Ministerstvo
Myasnoi i Molochnoi Promyshlennosti, SSSR. Price
58 kop.

391

[Refrigeration techniques in the food industry.]
Chladici technika v potravinarstvi. [A book]
Ibl, V.

451pp. (1971) [Numerous ref. Cs] Prague,
Czechoslovakia: SNTL Price 57 kcs

This book, which deals with food chilling and freezing technology, equipment used, and packaging materials and methods, is intended for specialists engaged in the food industry and low temp. equipment design. It contains the following chapters: Technological principles of food chilling and freezing; Use of cold in food production and beverage manufacture; Equipment used for food freezing and long term food storage; Ice and ice cream manufacture; Equipment used for freeze drying of foods; Packaging of chilled, frozen and freeze-dried foods; and Chilled and frozen foods in the commercial network. STI

392

[Thermophysical processes in refrigeration
technology of food.] Teplofizicheskie protsessy v
kholodil'noi tekhnologii pishchevykh produktov.
[A book]

Chizhov, G. B.
302pp. (1971) [281 ref. Ru] Moscow, USSR:
Izdatel'stvo Pishchevaya Promyshlennost'. Price
2.11 roubles

This book, designed for use by specialists in the refrigeration industry and by food engineers in general, contains the following chapters: Principles of refrigeration processing and storage of food products (pp. 8-24); Supercooling and freezing of moisture in food products (pp. 25-59);

thermophysical and mechanical properties of food products (pp. 60-84); Refrigeration of food products (pp. 85-132); Freezing and deep-freezing of food (pp. 133-213); Food storage (pp. 214-263); and Thawing and refreezing of foods (pp. 264-283). HBr

393

The freezing preservation of foods. Vol. I.
Refrigeration and equipment. [A book]

Tressler, D. K.; Arsdel, W. B. van; Copley, M. J.
(Editors)
ix + 325pp. (1968) [Numerous ref. En] Westport,
Connecticut: AVI Publishing Co. Inc. Price \$14.00
(US) \$15.00 (Foreign)

This 1st volume of the revised and enlarged 3rd edition is primarily engineering in nature and deals with the basic principles of refrigeration and with refrigerating machinery. The following chapters are included: 'The history of refrigeration, ice manufacture and cold storage', by W. R. Woolrich (pp. 1-18); 'The principles of refrigeration', by W. R. Woolrich (pp. 19-48); 'Refrigerating systems used in cold and freezer storage', by W. R. Woolrich (pp. 49-73); 'Design of cold and freezer storage warehouses', by W. R. Woolrich, Part 1 'Above-ground refrigerated storage' (pp. 74-109), Part 2 'Underground dry, cold and refrigerated storages' (pp. 110-19); 'Food freezing systems', by D. K. Tressler (pp. 120-52); 'Cryogenic freezing', by D. K. Tressler (pp. 153-75); 'The locker and freezer provisioning industry', by R. L. Madeira (pp. 176-97); 'Home cooling and freezing equipment and storage', by W. R. Woolrich (pp. 198-220); 'Frozen food retail cabinets', by W. R. Woolrich (pp. 221-33); 'The warehousing of frozen foods', by W. R. Woolrich (pp. 234-58); 'Rail transportation of frozen foods', by R. H. McKee (pp. 259-80); 'Refrigerated trucks', by W. H. Redit (pp. 281-302); 'The marine transport of frozen foods' by L. L. Westling (pp. 303-18). [See FSTA (1969) 1 4G117, 6E605 and 1E84 for Vol II, III and IV.] VJG

394

Freezing preservation of foods. Vol. 2 - Factors
affecting quality in frozen foods. [A book]

Tressler, D. K.; Arsdel, W. B. van; Copley, M. J.
(Editors)
4th edition ix + 397pp. (1968) [Numerous ref. En]
Westport, Connecticut: AVI Publishing Co., Inc.
Price \$18.00

The 3rd edition has been augmented and completely rewritten to provide this 4 vol. 4th edition. This 2nd vol. includes the following chapters: 'Phenomena observed in freezing and thawing of animal and plant tissues', by B. Luyet (pp. 1-25); 'Thermal properties of foods', by R. W. Dickerson Jr. (pp. 26-51); 'Changes in and measurement of frozen food quality', by A. Kramer and B. A. Twigg (pp. 52-82); 'Characteristics and stability of frozen products of: 'Vegetables', by R. L. Olson

and W. C. Dietrich (pp. 83-106), 'Fruits', by J. D. Ponting; B. Feinberg; F. P. Boyle (pp. 107-33), 'Poultry', by D. de Fremery and R. N. Sayre (pp. 134-58) and 'Eggs', by W. D. Powrie (pp. 248-59); 'Preservation of meat quality by freezer storage', by W. L. Sulzbacher

and A. M. Gaddis (pp. 159-78); 'Characteristics and factors affecting quality changes during freezing and storage of: 'Fish', by J. W. Slavin (pp. 179-96), 'Shellfish', by J. A. Dassow; E. A. Fieger; A. F. Novak; J. A. Peters (pp. 197-223) and 'Dairy products', by B. H. Webb (pp. 224-47); 'Packaging frozen foods', by B. Feinberg and R. P. Hartzell (pp. 260-88); 'Microbiology of frozen foods', by A. C. Peterson and M. F. Gunderson (pp. 289-326); 'Nutritive value of frozen foods', by B. K. Watt (pp. 327-62). An appendix is included of standard lab. methods used in the inspection and research study of frozen foods, by B. A. Twigg and A. Kramer (pp. 363-92). [See FSTA (1969) 1 1E84]. JA

395

The freezing preservation of foods. [A book] Tressler, D. K.; Arsdel, W. B. van; Copley, M. J. (Editors) Vol. 3 xi + 486 pp. (1968) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co. Ltd. Price \$19.00

This 3rd vol. of the 4th edition of 'The freezing preservation of foods' gives a complete technological description of the commercial production of frozen fresh foods. The 1st and 2nd chapters give a brief historical outline of commercial food freezing in North America and in Europe. The remaining 14 chapters included are: 'The preparation for freezing and freezing of fruits' by F. P. Boyle & E. R. Wolford, (pp. 70-112); 'The manufacture, concentration and freezing of fruit juices, pulpy fruit juices and purees' by B. Feinberg, (pp. 113-49); 'The preparation for freezing and freezing of vegetables' by B. Feinberg, F. Winter & T. L. Roth, (pp. 150-94); 'The preparation for freezing and freezing of meats' by L. J. Bratzler, (pp. 195-208); 'Poultry: Processing and freezing' by A. A. Klose, (pp. 209-32); Part I 'The preparation for freezing and freezing of fish in North America' by J. W. Slavin, (pp. 233-49); Part 2 'In Europe' by A. Banks & J. J. Waterman, (pp. 250-65); 'Preparation for freezing and freezing of shellfish' Part 1 'Crabs and lobsters' by J. A. Dassow, (pp. 266-75); Part 2 'Shrimp' by E. A. Fieger & A. F. Novak, (pp. 276-88); Part 3 'Oysters, scallops, clams and abalone' by J. A. Peters, (pp. 289-94); 'Preparation for freezing and freezing of dairy products' by B. H. Webb, (pp. 295-331); 'The preparation for freezing and freezing of eggs' by O. J. Kahlenberg & J. M. Gorman, (pp. 332-46); 'Dehydrofreezing of fruits and vegetables' by M. E. Lazar, (pp. 347-76); 'Freeze-drying of foods' by L. F. Ginnette & V. F. Kaufman, (pp. 377-403); 'Sanitation of the frozen food plant' by E. R. Wolford, (pp. 404-23); 'Statistical quality control' by A. Kramer & B. A. Twigg, (pp. 424-63); 'Public and private frozen food

regulations and handling codes' by L. S. Fenn, (pp. 464-79). VIG

396

Freezing preservation of foods. Vol. IV. Freezing of precooked and prepared foods. [A book] Tressler, D. K.; Arsdel, W. B. van; Copley, M. J. (Editors) 569 pp. (1968) [Numerous ref. En] Westport, Connecticut: A VI Publ. Co. Price \$22 [Western Regional Res. Lab., USDA, USA]

This is the final vol. of The Freezing Preservation of Foods. The 1st chapter reviews the development of the industry. The 2nd chapter deals with the chemical, enzymatic and microbiological problems of preparation for freezing, freezing, storage and reheating pre-cooked food. This is followed by a report of surveys made to determine which pre-cooked foods consumers require. The 4th chapter is concerned with the packaging of pre-cooked frozen foods. In the next 18 chapters the procedures used in preparing given foods and the methods of freezing are outlined. This is followed by a chapter on frozen complete meals. Finally there are 3 chapters on the storage, handling and use of pre-cooked frozen foods. JA

397

Deep freezing. [A book] Cox, P. M. 458 pp. (1968) [En] London: Faber & Faber. Price 84s.

The 1st part of the book deals with the theory of freezing including the physical principles, the nutritional value of frozen foods and the importance of enzymes and micro-organisms. It also contains chapters on the choice and maintenance of a freezer, packaging materials and the commercial aspects of the frozen food industry. The latter contains sections on transport, methods of freezing, the pea harvest, the fishing industry, accelerated freeze drying and dehydrofreezing. The 2nd part describes in detail, methods of home freezing of fruit, vegetables, meat, poultry and game, fish and dairy produce. The final part, which is the largest section of the book, contains a collection of recipes. JA

398

[Manufacture of frozen products at the Kiev frozen-food factory No 1.] Proizvodstvo zamorozhennykh produktov na kievskom kholodil'nike No 1. [A book] Burmakin, A. G.; Fal'kovich, Ya. D. Sudoplatov, G. A. 104pp. (1968) [13 ref. Ru] Moscow: Izdatel'stvo "Pishchevaya Promyshlennost'"

This booklet outlines the organization of the 'Kiev No 1' frozen-food factory and methods used for freezing fruit, soft fruit, vegetables, mixed fruit and mixed vegetables, as well as fully and semi-processed products. FI

399

[Canned foods.] Les conserves. [A book]

Lery, F.

No. 683: 126pp. (1971) [Numerous ref. Fr]
Paris, France: Presses Universitaires de France

This paperback is No. 683 in the series "Que sais-je", and gives a compact introduction to the subject of canned foods under the following chapter headings: History (pp. 11-39); Technology of canning (pp. 40-96); The canning industry in France and throughout the world (pp. 97-112); Nutritional value of canned foods (pp. 113-116); Organization of the industry (pp. 117-118); and Conclusions: the era of canned food (pp. 119-121).
HBr

400

Food canning techniques.

Gutterson, M

Food Processing Review, Noyes Data Corporation
26: vii + 238pp. ISBN 0 8155 0444 6 (1972) [En]
Park Ridge, New Jersey, USA: Noyes Data Corp.
Price \$36.00

This book, based on patents since 1963 relating to commercial food canning techniques, supplies detailed technical information and can be used as a guide to US patent literature in this field.

Information is arranged under the following headings: General techniques (canning systems, aseptic canning, closure techniques, can coatings, deoxygenation, containers, chemical preservatives) (pp. 3-60); Meat and poultry (pp. 61-110); Fish and sea-food (pp. 111-146); Vegetables, fruits and juices (pp. 147-183); Dairy products (pp. 184-205); Beverages (pp. 206-214); Cereal products (pp. 215-223); and Miscellaneous products (coffee, eggs, aerosol container) (pp. 224-233). The table of contents is arranged in such a manner as to serve as a subject index. Company, inventor and patent number indexes are included.
JA

401

[Irradiation techniques for the treatment of agricultural products. A review of the foreign literature.] Obluchtel'naya tekhnika dlya obrabotki sel'skokhozyaistvennoi produktsii. Obzor inostrannoi literatury. [A book]

Lur'e, L. S.; Voropaev, Yu. B.; Srapenyants, R. A.
115pp. (1970) [135 ref. Ru] Moscow, USSR: Otdel Vnedreniya i Informatsii. 0.63 rouble

402

[Irradiation of food products.] Radioatsionnaya obrabotka pishchevykh produktov. [A book]

Pogachev, V. I.; Zhukov, B. G.; Pal'min, V. V.; Pertsovskii, E. S.
248pp. (1971) [Ru] Moscow, USSR: Atomizdat
Price 1.40 roubles

This book contains the Proceedings of the

Conference "20 years of use of isotopes and radiation in the national economy", held at Minsk in Oct. 1968. It includes the following principal papers: Irradiation of potatoes, vegetables and fruit; Utilization of ionizing radiation for grain protection; Irradiation of dried fruit, vegetables and food concentrates; Use of gamma irradiation in the meat industry; Use of gamma irradiation in the fish processing industry; Commercial food irradiation; Economics of the application of potato irradiation; Biological value of irradiated food products; Perspectives of use of ionizing radiation for the intensification of technological processes in the food industry; Research work carried out in Hungary; Effect of gamma radiation of plastics materials during food irradiation; Effect of gamma irradiation on keeping quality of fruit; Effect of gamma irradiation on keeping quality of fruit; Effect on yeasts; Effect of irradiation on sugar beet during storage; Equipment for disinfection by gamma irradiation; Problems of dosing; Changes in baking properties of irradiated grain; Possibilities of use of corn starch hydrolysis products; Use of gamma rays for water treatment; Use of irradiation in wine production; and Use of gamma radiation in the poultry industry. STI

403

[Filtration.] Filtrovaniye. [A book]

Zhuzhikov, V. A.

410 pp. (1968) [396 ref. Ru] Moscow: Chimiya.
Price 1 r. 45 k.

This 2nd edition describes the basic construction of filters, and the differences in filtration in interrupted and continuous processes. Several new chapters have been added.
STI

404

Reverse osmosis. [A book]

Sourirajan, S.

xix + 580pp. SBN 0 236 30838 6 (1970) [Numerous ref. En] London, UK: Logos Press Ltd. Price £8 [Div. of Applied Chem., Nat. Res. Council, Ottawa, Canada]

Chapters of this book are devoted to describing reverse osmosis in terms of: general applicability of the technique; preparation and performance of porous cellulose and other membranes; transport of substances through membranes; concentration polarization effects; use as a general concentration technique; separation of mixed solvents in aqueous solution; separation of mixtures of organic liquids; and some applications and engineering developments. Although little space is given to specific applications, the approach of considering the subject as a unit process in chemical engineering should make this monograph of value to specialists in the food and dairy industries. BEPC

405

Industrial processing with membranes. [A book]
Lacey, R. E.; Loeb, S. (Davis, T. A.; Brockman, G. F.; Huffman, E. L.; Ahlgren, R. M.; Nishiwaki, T.; Reid, C. E.; Lonsdale, H. K.; Merson, R. L.; Ginnette, L. F.) (Editors)

x + 348pp. ISBN 0 471 51136 6 (1972)

[Numerous ref. En] Sussex, UK: John Wiley & Sons Ltd. [Southern Res. Inst., Birmingham, Alabama, USA] Price £7.35

The book provides engineers with theoretical and practical information for the design and operation of membrane processing plants. The book consists of 2 sections: Electrically driven membrane processes; and Pressure-driven membrane processes. The first section consists of: Basis of electromembrane processes, by R. E. Lacey (pp. 3-20, 27 ref.); Physicochemical aspects of electromembrane processes, by T. A. Davis and G. F. Brockman (pp. 21-37, 27 ref.); Engineering and economic considerations in electromembrane processing (pp. 39-55, by E. L. Huffman & R. E. Lacey (pp. 39-55, 14 ref.); Electromembrane processing of cheese whey, by R. M. Ahlgren (pp. 57-69); Electromembrane processes for recovery of constituents from pulping liquors, by R. M. Ahlgren (pp. 71-81, 5 ref.); and Concentration of electrolytes with an electromembrane process prior to evaporation, by T. Nishiwaki (pp. 83-106, 26 ref.); The second part contains the following chapters: Principles of reverse osmosis, by C. E. Reid (pp. 109-122, 10 ref.); Theory and practice of reverse osmosis and ultrafiltration, by H. K. Lonsdale (pp. 123-178, 118 ref.); The costs of reverse osmosis, by R. E. Lacey (pp. 179-189, 7 ref.); Reverse osmosis in the food industry, by R. L. Merson & L. F. Ginnette (pp. 191-221, 52 ref.);

JN

406

Industrial processing with membranes. [A book]
Lacey, R. E.; Loeb, S. (Editors)

x + 348pp. ISBN 0 471 51136 6 (1972)

[Numerous ref. En]

[Continued from preceding abstr.] Applications for reverse osmosis in the pulp and paper industry, by A. J. Wiley, A. C. F. Ammerlaan & G. A. Dubey (pp. 223-247, 7 ref.); The treatment of industrial wastes by pressure-driven membrane processes, by R. W. Okey (pp. 249-277, 22 ref.); and Gas permeation processes, by S. A. Stern (pp. 279-339, 75 ref.). An 8-pp. subject index is included. JN

407

[Chemistry of food smoking.] Khimiya kopcheniya. [A book]

Kurko, V. I.

343pp. (1969) [577 ref. Ru] Moscow, USSR:

Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 2.48 rouble

This well prepared and presented book contains

the following chapters: Chemical fundamentals of smoke formation (pp. 9-43); Chemical composition of food-grade smoke (pp. 44-110); Settling of smoke components on product (pp. 111-31); Penetration of smoke components into product (pp. 132-50); Taste and odour formation in smoked products (pp. 151-200); Antioxidative effect of smoking (pp. 200-15); Bactericidal effect of smoking (pp. 215-37); Colour of smoked products (pp. 238-57); Comparative roles of various smoke components and problems in the study of the chemistry of smoking (pp. 257-71); and Chemical aspects of smokeless curing (pp. 271-318). The 25-pp. bibliography is divided into Soviet (283 ref.) and non-Soviet (194 ref.) sources, arranged alphabetically. HBr

408

Materials and methods in fermentation. [A book]
Solomons, G. L.

vii + 331pp. SBN: 12 654450 6 (1969) [Numerous ref. En] London, UK: Academic Press Inc. Ltd. Price £4.50

This book is designed for workers in the fermentation field who wish to improve their knowledge of the biochemical and mechanical aspects of fermentation. The following chapters are included: The design and operation of fermentation equipment (pp. 1-70, 61 ref.); Sterilization of gases and culture medium (pp. 71-132, 10 ref.); Antifoaming devices and chemical antifoam agents (pp. 133-49, 14 ref.); Materials of construction (pp. 150-67, 10 ref.); Auxiliary equipment (pp. 168-229, 7 ref.); Instrumentation (pp. 230-91, 45 ref.); and Recovery equipment (pp. 292-321, 8 ref.). A comprehensive list of commercial companies making equipment or supplies, etc., is given at the end of each chapter. VJG

PACKAGING

409

Principles of food packaging. An international guide. [A book]

Heiss, R. (Food & Agriculture Organization) (Editor)

332pp. (1970) [Numerous ref. En] Frankfurt, W. Germany: P. Keppler Verlag KG

Special attention is paid to the packaging needs and possibilities in the developing countries. The subject is covered under the headings: Basic packaging terminology; Special questions of packaging of foods; Flexible packaging materials; Food packaging and equipment; Shipping materials and equipment; Food packaging in the tropics; Test methods. JN

410

Principles of package development. [Book]

Griffin, R. C., Jr.; Sacharow, S.
327pp. ISBN 0 87055 118 3 (1972) [many ref.
En] Westport, Connecticut, USA, AVI Publishing
Co. Inc. Price \$17 (USA) \$18 (Foreign)
[Reynolds Metals Co., Richmond, Virginia, USA]

The subject is covered under the chapter
headings: Origins of package development, by
R. C. Griffin, Jr. & S. Sacharow (pp. 1-9, 27 ref.);
Package development - an overview, by R. C.
Griffin, Jr. & S. Sacharow (pp. 10-22, 34 ref.);
Packaging materials, by R. C. Griffin, Jr. & S.
Sacharow (pp. 23-58, 92 ref.); Package forms, by
R. C. Griffin, Jr., S. Sacharow & A. L. Brody (pp.
59-112, 110 ref.); Materials and package testing, by
R. C. Griffin, Jr. & S. Sacharow (pp. 113-146, 34
ref.); The packaging process - a segment of
manufacturing operations, by A. L. Brody (pp. 147-
172, 54 ref.); Some typical packaging equipment,
by A. L. Brody (pp. 173-202, 44 ref.); Relationship
of packaging to marketing, by R. C. Griffin, Jr. &
S. Sacharow (pp. 203-225, 36 ref.); Governmental
regulations affecting packaging, by R. C. Griffin, Jr.
& S. Sacharow (pp. 226-247, 31 ref.); Disposal of
waste packaging materials, by R. F. Testin (pp. 248-
272, 41 ref.); and Packaging and world hunger, by
W. J. Gall (pp. 273-305, 87 ref.). Appendices
cover: Packaging paper development in Latin
America (pp. 306-308); and Members of the World
Packaging Organization and the Asian European
and North American Packaging Federations (pp.
309-321). A 6-pp. subject index is included. JN

411

[Modern packaging techniques.] Moderní obalova
technika. [A book]
Ryant, B.
281pp. (1971) [16 ref. Cs] Prague, Czechoslovakia:
SNTL. Price 30.0 Kcs

The book deals with the following problems:
development of packaging techniques; economics of
packaging; influences affecting products during
transportation and marketing; fundamentals of
protective packaging; handling of packaged
products; aesthetics in packaging;
standardization; transportation; and legal
regulations. STI

412

Handbook of package engineering. [A book]
Hanlon, J. F.
xi + 544pp. ISBN 0 7 025993 3 (1971) [En] New
York, USA: McGraw-Hill Book Co. Price \$18.50

This reference work for packaging engineers
covers the subject under the headings: Elements of
packaging (28pp.); Folding cartons and setup boxes
(25pp.); Films and foils (60pp.); Paper and
paperboard (22pp.); Corrugated fibreboard
(18pp.); Glassware (28pp.); Metal containers
(31pp.); Plastics (88pp.); Closures, applicators,
fasteners, and adhesives (32pp.); Bags and
envelopes (11pp.); Aerosols (29pp.); Fibre tubes,

cans, and drums (16pp.); Coatings and laminations
(18pp.); Labels and labelling (13pp.); Wood
containers (15pp.); Laws and regulations (23pp.);
Cushioning (5pp.); Test methods (9pp.); Quality
control (11pp.); and Machinery and equipment
(31pp.). Each section is separately paginated. An
18-pp. subject index is included. JN

413

**Food packaging. A guide for the supplier,
processor, and distributor.** [A book]
Sacharow, S.; Griffin, R. C., Jr.
ix + 412pp. (1970) [Numerous ref. En] Westport,
Connecticut: AVI Publishing Co. Inc. Price \$16.00
(US) \$17.00 (Foreign) [Packaging Res. Division,
Reynolds Metals Co., Richmond, Virginia, USA]

This book covers the field of commercial food
packaging and is intended for workers involved in
the creation, marketing or use of food packages.
The development of food packaging is outlined, and
the origin and properties of materials used for
packaging, and basic package types are
described in detail. Each major food category is
covered in depth as to its relationship to the
total market, the properties of the food and its
packaging requirements. Special consideration is
given to the properties of recently introduced
sheetings and their use in packaging. Future
trends are also discussed. The book contains many
photographs, diagrams and tables. A subject
index is included. Chapters are: 'Evolution of
food packaging' (pp. 1-63, 42 ref.); 'Basic food
processes' (freezing, heating, dehydration) (pp.
65-94, 26 ref.); 'Red meats' (pp. 95-119, 29
ref.); 'Poultry and eggs' (pp. 121-42, 15 ref.);
'Milk and dairy products' (pp. 143-74, 63 ref.);
'Fish and shellfish' (pp. 175-200, 21 ref.);
'Fruits and vegetables' (pp. 201-36, 33 ref);
'Fats and oils' (pp. 237-51, 11 ref.); 'Food
flavourings and condiments' (pp. 253-76, 10 ref.);
'Beverages' (pp. 277-309, 35 ref.); 'Sugar,
chocolate and confections' (pp. 311-39, 19 ref.);
'Cereal grains, bread and baked goods' (pp. 341-
76, 26 ref.); 'Snack foods' (pp. 377-90, 14 ref.);
and 'Statutory and religious regulations affecting
food packaging' (pp. 391-408, 15 ref.). JA

414

A "course" in canning. [A book]
Rogers, J. L.
125pp. (1966) [En] London: Food Trade Press Ltd.
Price 20s.

This book, intended for foremen and charge
hands in canning factories, contains elementary
information presented in the following 12 lessons:
'The basic principles of chemistry' (pp. 11-20);
'Elementary physics' (pp. 21-31); 'What food is,
and what it does' (pp. 32-41); 'The causes of food
spoilage' (pp. 42-49); 'Commercial food
processing' (pp. 50-59); 'Preparation of food for
canning' (pp. 60-69); 'Blanching, filling and
exhausting' (pp. 70-79); 'Retorting, cooling and
storage' (pp. 80-88); 'Double seaming' (pp. 89-
98); 'Quality control' (pp. 99-106); 'Motion
study' (pp. 107-17); 'Foremanship' (pp. 118-25). JA

415

Laboratory manual for food canners and processors. Vol. 1. Microbiology and processing. [A book]
National Canners Association.
viii + 336pp. (1968) [Numerous ref. En] Westport,
Connecticut: AVI Publishing Co. Inc. Price
\$ 11.50

See following abstract.

416

Laboratory manual for food canners and processors. Vol. 2. Analysis, sanitation and statistics. [A book]
National Canners Association.
viii + 444pp. (1968) [Numerous ref. En] Westport,
Connecticut: AIV Publishing Co. Inc. Price
\$ 11.50

This laboratory manual has been prepared for chemists, microbiologists, and technologists in the canned foods ind. The text of the 1954 and 1956 editions of 'A laboratory manual for the canning industry' has been revised to produce this 2 vol. work. The 1st vol. covers microbiological, processing and extraneous material methods and the 2nd deals with statistical, chemical and sanitation methods. The following chapters are included: Vol. 1, 'Preparation of media for micro-organisms' pp. 1-35; 'Stains and microscopic preparations' pp. 36-43; 'Investigating spoilage problems' pp. 44-87; 'Separation of flat sour and low vacuum cans from normal cans' pp. 88-93; 'Microbial counts and standards' pp. 94-113; 'Classification of micro-organisms' pp. 114-65; 'Thermal death times' pp. 166-203; 'Heat penetration and heat distribution' pp. 204-19; 'Process calculations' pp. 220-51; 'Inoculated experimental packs' pp. 252-64; 'Retorts: their equipment and operation' pp. 265-99; 'Product examination for extraneous materials' pp. 300-28. Vol. 2, 'Statistical procedures' pp. 1-51; 'Statistical quality control charts' pp. 52-76; 'Evolutionary operation' pp. 77-103; 'The chlorination of water' pp. 104-37; 'Food plant cleaning' pp. 138-58; 'Evaluation of sanitation' pp. 159-67; 'The measurement of acidity' pp. 168-89; 'Miscellaneous analytical methods' pp. 190-276; 'Analysis of tomato products' pp. 277-317; 'Pesticide residues and additives' pp. 318-34; 'Analysis of liquid wastes' pp. 335-59; 'Sample cuttings' pp. 360-408; 'Containers' pp. 409-38. VIG

417

Practical canning. [A book]
Lock, A.
3rd edition, xvi + 415pp. (1969) [En] London: Food Trade Press Ltd.

This revised and enlarged edition incorporates many of the changes in canning techniques and machinery which have occurred since the previous edition was published. The principles of food preservation and their application on to canning are explained. Processing methods and canning machinery in general use are described and well illustrated (over 200 illustrations). The

following chapters are included; 'Starting a cannery' (pp. 1-10); 'Cannery organization' (pp. 11-25); 'Can sealing' (pp. 26-40); 'The canning of fruit' (pp. 41-52); 'Canning of apples and apple sauce' (pp. 53-75); 'Fruit packs' (pp. 76-139); 'Syrups' (pp. 140-49); 'Fruit pulp and pulping' (pp. 150-58); 'Jam canning' (pp. 159-69); 'Fruit

bottling' (pp. 170-73); 'Retort operation' (pp. 174-200); 'The canning of vegetables' (pp. 201-364); 'Modern canning techniques' (pp. 365-77); 'General' (pp. 378-98). VJG

418

[Corrosion resistance of stainless steel. A handbook.] Korroziionnaya stoikost' nerzhavayushchikh stali. Spravochnik. [A book]
Tufanov, D. G.

2nd edition 180pp. (1969) [228 ref. Ru] Moscow: Izdatel'stvo 'Metallurgiya'. Price 0.70 Roubles

This reference book deals with corrosion resistance of stainless steels, pure metals and highly-alloy steels in various corrosive media in relation to the characteristics, concn. and temp. of the media. Chemical composition of stainless steels is given as well as optimal conditions of heat treatment, methods of scale removal, mechanical properties of the steels and GOST standards for and technology of manufacture of the steels. Types of corrosion and methods of surface preparation are described and applications of the steels are listed. Appendices contain a list of names and chemical formulae of corrosive media, a similar list for some organic salts and acids and tables of physical and chemical data on steels, some metallic oxides, metals and some technologically important solids. SKK

419

[Automatic lines for filling liquid foods.] Avtomaticheskie linki rozлива pishchevykh zhidkostei. [A book]
Stepanov, I.; Galasov, P. N.
359pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya promyshlennost. Price 1.12 roubles

The book deals with Soviet and foreign automatic bottling lines and their operation. The main chapters are: preparation of glass jars and bottles; washing of glass containers; filling of liquid foods; closing of filled bottles; labelling; conveyors; bottling lines; transportation; and general repairs, safety, and economics. STI

420

[Corrosion in food production and ways of preventing it. 3rd edition.] Korroziya v pishchevykh proizvodstvakh i sposoby zashchity. [Book]

Avdeeva, A. V.

276pp. (1972) [50 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'

This book, designed to give an understanding of the mechanism and effect of corrosion and an appreciation of the aggressive nature of the majority of foods, contains three chapters: Information on the corrosion of metals and alloys; Corrosion and corrosion-resistant metals and materials in the food industry (covering winemaking, the alcohol industry, brewing, yeast production, baking, edible acids, confectionery, sugar, and vitamins); and the use of polymers for the manufacture and protection of food equipment. Appendices tabulate the corrosion resistance characteristics of materials in aggressive environments, and the chemical composition of metals and alloys. HBr

421

Modern packaging films. [A book]

Pinner, S. H. (Editor)

vi + 249pp. (1967) [74 ref. En] London: Butterworths. Price 55s. [BXL Industrial Products Group Ltd., Manningtree, Essex, England]

This book is directed to people concerned with the problems of tailormaking, converting, machining and end-use promotion of packaging films. Chapters included are: 'The evolution of packaging films in display and general merchandising', by D. J. Flatman (pp. 5-23); 'Production, properties and packaging applications of polyethylene film', by J. W. Ladbury (pp. 24-55); 'Production, properties and packaging applications of polypropylene film', by H. A. Rigby (pp. 56-78); 'Packaging applications of polystyrene and cellular polystyrene films', by J. M. Cook (pp. 79-100); 'Production, properties and packaging applications of PVC film', by G. H. Burke (pp. 101-19); 'Heat-shrinkable films and their use in packaging', by E. M. Goodman and K. Buob (pp. 120-42); 'Physical testing of polymer films', by D. R. Reid (pp. 143-83); 'Printing and adhesion of polymer films', by D. W. Shorten (pp. 184-97); 'Cold-seal coatings on polypropylene and other films', by J. A. Horrocks (pp. 198-211); 'Adaption of automatic packaging machines to modern packaging films', by C. H. Taylor (pp. 212-27); 'Economics and growth trends of packaging films', by W. G. Simpson (pp. 228-38). BSG

422

[Hygienic evaluation of plastics materials for use with foods, medicines and other items of general utility.] Higieniczna ocena tworzyw sztucznych w zakresie srodkow spozywczych, lekow i przedmiotow uzytku. [Book]

Chojnicka, B.; Mazur, H.; Piekacz, H.; Sluzewska, L.; Sokolowska, R.; Zalewski, W.

293pp. (1972) [51 ref. Pl] Warsaw, Poland, Zaklad Wydawnictw Lekarskich. Price 52 zl

The book deals especially with the use of various packaging materials, with particular reference to

hygienic aspects. It includes the following chapters: characteristics of plastics materials; thermoplastic, thermoreactive and chemoreactive plastics materials; manufacturing methods; physical, chemical and mechanical properties of plastics materials; criteria for evaluation of hygienic suitability of plastics materials for various purposes; and legislative aspects. In the second part of the book individual plastics materials used in contact with foods, medicines and other consumer goods are described. STI

423

Flexible packaging of foods. [A book]

Brody, A. L.

vii + 103pp. ISBN 0 408 70147 1 (1970) [117 ref. En] London, UK: Butterworth & Co. (Publishers) Ltd. Price £5.00 [Arthur D. Little, Inc., Food & Flavour Section, Cambridge, Massachusetts, USA] See FSTA (1971) 3 2F105.

424

[Plastics films for food packaging.] Plenochnye polimernye materialy dlya upakovki pishchevykh produktov. [A book]

Gul', V. E.; Belyatskaya, -.

277 pp. (1968) [Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 1.31 Roubles

General data related to the composition, manufacture and utilization of thin film materials are given under the following headings: composition of polymers; hygienic and chemical properties of films; methods of food packaging in relationship to film properties; use of film polymers in the food ind.; cellulose and cellulose products as packaging materials; polyethylene; polypropylene; polyvinyl chloride; copolymers of vinyl chloride; polyamides; polystyrene; polyethylene terephthalate; polycarbonates; combinations of packaging materials; use of films for packaging of metal products, dairy products, fish, fats and oils, fruit, bread and pastry; methods of testing various films for toughness, resistance to heat, pressure and friction; and methods of testing for permeability and brittleness. STI

425

Plastics for food contact applications. A code of practice for safety in use. [A book]

British Plastics Federation

54pp. (1969) [En] London: Author Price £20

This well-produced, loose-leaf vol. in a sturdy ring folder covers safety in use of plastics materials in contact with foodstuffs in the sense of migration of a possibly toxic constituent. Designed to facilitate correct selection of a packaging material or materials, the vol. is divided into 4 sections: the introduction discusses the principles employed in assessing safety in use and outlines the method by

which recommendations are formulated (with an appendix on extraction testing); a section entitled 'polymer specifications' covers vinyl chloride polymers and copolymers, styrene polymers, acrylonitrile butadiene styrene polymers, polyethylene, polypropylene, melamine formaldehyde mouldings, unsaturated polyester resins; an alphabetic list follows of 171 trade and branch names of additives, giving UK suppliers, chemical name or type, class of polymer to which applicable, type of food concerned, max. level of use and authority providing basis for recommendation; and the same information is given in alphabetical order of chemical name or type. HBr

426

[Plastics packages in the fish industry.]

Polimernaya tara i upakovka v rybnoi promyshlennosti. [Book]

Larinov, V. V.

131pp. (1971) [115 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'. Price 64 k.

Problems of shipping and consumer packages used in the fish industry are discussed with respect to packages manufactured from polymer materials. The book includes the following chapters: Polymers used for the manufacture of packaging materials and main methods of manufacture; Rigid consumer packages; Packaging in plastics foils; and Shipping containers. The book will serve as a manual for specialists engaged in the fish processing industry. STI

427

Cartons and flexible packaging. [A booklet.]

Bowater Packaging Ltd.

16pp. (Undated) [En] Gillingham, Kent: Bowater Packaging Limited

This booklet outlines the work and facilities of Bowater's flexible packaging and carton plant at Gillingham, Kent, England. Types of flexible packaging and carton materials and styles are summarized, and illustrations of some applications are included. HBr

428

[Use of epoxy resins in the food industry.]

Primenenie epoksidnykh smol v pishchevoi promyshlennosti. [A book]

Genel', S. V.; Muravin, Ya. G.;

Parkhomovskaya, L. D.

121 pp. (1969) [30 ref. Ru] Moscow, USSR: Pishchevaya Promyshlennost'. Price 32 k.

This book, which contains data on the basic properties of epoxy resins and the technology of their use in the food ind., is written for engineers and technicians, res. workers and employees in the higher echelons of the food ind., especially in the meat and dairy ind. Contents include: epoxy resins, their properties,

applicability, modifications and hardening; lacquers and enamels containing epoxy resins used in the production of canned foods; technology of application and drying of epoxyphenol films; preparation of lacquers and enamels for use in wrapping materials; lacquering of plastics films; properties of epoxyphenol wrappers and their control; sanitation and hygienic standards required of wrapping materials; epoxy films on containers and equipment for their application; application of powders as a base for epoxy resins; epoxide glues; and economics of epoxy resin usage in the food ind. STI

NEW & CONVENIENCE FOODS**(INCL. FROZEN FOODS)**

429

Dietetic foods. [A book]

Bender, A. E.

xii+286pp. (1967) [Numerous ref. En] London, England: Leonard Hill Books Price 63s

This book describes both the processes of manufacture and the medical reasoning behind the particular recipe employed. Subjects covered are: 'Foods for health' (pp. 1-12); 'Dietary formulation' (pp. 13-24); 'Inborn errors of metabolism' (pp. 25-41); 'Low-sodium foods' (pp. 42-50); 'Diabetes' (pp. 51-57); 'Infant foods' (pp. 58-81); 'Slimming regimes' (pp. 82-93); 'Protein-rich preparations' (pp. 94-102); 'Foods for the elderly' (pp. 103-06); 'Atherosclerosis' (pp. 107-11); 'Energy requirements' (pp. 112-38); 'Proteins' (pp. 139-62); 'Fats' (pp. 163-70); 'Mineral elements' (pp. 171-91); 'Vitamins' (pp. 192-219); 'Vitamins of medical interest' (pp. 220-37); 'Food enrichment' (pp. 238-42); 'Loss of nutrients' (pp. 243-52). A glossary of medical terms, an appendix of dietetic foods manufactured in Great Britain (names and addresses of manufacturers are listed) and a 24 page subject index are included. AB

430

[Baby food products.] Produkty detskogo pitaniya. [A book]

Korobkina, G. S.

294pp. (1970) [Numerous ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 2.50 roubles

Methods of baby food production in the USSR and abroad are given. The 1st part deals with products suitable for babies between 5 and 6 months of age, the 2nd part with products for babies between 6 and 12 months. The main chapters are headed: Use of milk of domestic animals; Cereal products used in dairy mixes; Dairy products for babies; Health authority views on foods for babies younger than 6 months; Vegetable products; Fruit and vegetable products and meat and vegetable cream soups; Sterilized meat and fish products; Protein pastes and combined sterilized food with quarg

(white cheese); Confectionery products for babies; Baby food produced abroad. STI

431

Soup manufacture. Canning, dehydration and quick-freezing. [A book]

Binsted, R.; Devey, J. D.

3rd edition xi + 260pp. (1970) [5 ref. En] London: Food Trade Press Ltd. Price £4

Since publication of the previous edition of this book in 1960, much new technical information has become available which has been incorporated in this 3rd edition. Illustrations of the latest machinery and equipment and of soup making plants are included. New formulae for the commercial production of various soups are also given. Chapters are: Historical aspects (pp. 1-6); Soup stock (pp. 7-12); Soup making plant (pp. 13-28); Soups for canning (pp. 29-75, 1 ref.); Condensed soups (pp. 76-80); Soups canning and processing (pp. 81-111); Quick-frozen soups (pp. 112-19, 2 ref.); Legal aspects (pp. 120-47); The seasoning of soups, by H. B. Heath (pp. 148-82, 1 ref.); Technical aspects of raw materials (pp. 183-216, 1 ref.); and Dry soup mixes (pp. 217-255). A list of illustrations and a subject index is included. JA

432

Convenience and fast food handbook. [Book]

Thorner, M. E.

vii + 358pp. ISBN 0 87055 134 5 (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$20.00 (US) \$21.00 (Foreign) [Culinary Inst. of America, Hyde Park, New York, USA]

This book, which is intended to be a primer, on the use of equipment and its effects on foods, handling and preservation, is divided into 2 sections: The fast food preparation centre (pp. 15-148) and Control, evaluation and handling of efficiency foods (pp. 149-345). The following chapters are included: History and concepts (pp. 1-13, 12 ref.); Preparation systems (pp. 14-28, 9 ref.); Storage areas (pp. 29-56, 15 ref.); The production area (pp. 57-101, 20 ref.); Microwave cookery (pp. 102-132, 8 ref.); Deep frying (pp. 133-148, 9 ref.); Quality control (pp. 149-218, 26 ref.); Concepts of efficiency foods (pp. 219-261, 37 ref.); Convenience foods (pp. 262-329, 32 ref.); and Convenience desserts and beverages (pp. 330-345, 14 ref.). VJG

433

[Convenience foods, dairy products and fats.]

Gastronomicheskije, molochnye tovary i zhiry. [A book]

Kashcheeva, F. P.; Kononenko, I. E.;

Pugovkin, V. N.; Tylkin, V. B.

238pp. (1968) [Ru] Moscow, USSR: Ozdatel'stvo Ekonomika. Price 0.45 rouble

This book includes sections covering chemical

composition and calorific value of products; influence of raw material on products; effects of processing methods, transportation and storage on the quality of convenience foods, dairy products and fats. As convenience foods are included meat and fish products, egg products, beverages and gravies and sauces. Organization and marketing techniques for convenience foods are discussed. STI

434

Dehydration processes for convenience foods. [A book]

Noyes, R.

367pp. (1969) [En] Park Ridge, New Jersey, USA: Noyes Development Corporation. Price \$35.00

This book, the 2nd in a series of 15, reviews food dehydration processes applicable to specific foods or classes of foods. 236 US patents, issued between Jan. 1960 and May 1968 serve as a basis for the detailed process information given for each instant or convenience food. Some earlier patents are referred to, where the information is necessary to give a comprehensive description of the process. Unnecessary legal jargon has been eliminated. The 236 processes are organized by subject into 10 chapters (with the major sub-headings in parentheses): 'Dry milk products' (non-fat dry milk, fluid whole milk, recombining processes, whey) pp. 1-97; 'Cheese and yoghurt' pp. 98-101; 'Eggs' (removal of glucose, pasteurization, use of additives, spray drying) pp. 102-35; 'Fruit and vegetable juices' (foam-mat process, drum drying, freeze concentration, vacuum drying) pp. 136-63; 'Fruits' (drum drying, vacuum-hot oil process, sugar additives) pp. 164-83; 'Potatoes' (granules, flakes, powder by spray drying, crystals, diced and piece forms) pp. 184-236; 'Vegetables' (beans, Brussels sprouts, carrots, corn, onions, garlic and horseradish, peas, pumpkin, soup mixes, sweet potatoes, tomatoes) pp. 237-66; 'Coffee' (roasting, grinding, extraction, concentration, drying, particle processing, reduce foaming, decaffeinating) pp. 267-318; 'Tea' (extraction, stripping extract, concentration, drying) pp. 319-47; 'Miscellaneous' (gelatin, meat, nuts, seafood, shortening) pp. 348-59. The table of contents is organized in such a way as to serve as a subject index. Other indices by company, inventor and patent number are given. VJG

435

Frozen foods. Biography of an industry. [Book]

Williams, E. W.

215pp. (1970) [En] Boston, Massachusetts, USA, Gannett Publishing Co. Price \$10.95

The history of the frozen foods industry since 1930 is covered under the chapter headings: prewar years (pp. 1-18); War years (pp. 19-43); Postwar period - the war is over (pp. 45-76); Creative years (pp. 77-104); Volume years (pp. 105-126); Trend to big companies (pp. 127-158); and Years of

refinement (pp. 159-193). The appendix gives selected 'Forum items' from Quick Frozen Foods. A Spp. subject index is given. JN

436

Production of pre-cooked frozen foods for mass catering. [A book]

Rogers, J. L.

xiv + 271 pp. (1969) [En] London: Food Trade Press, Ltd., Price 60s [Durban, Natal, S. Africa]

The subject is covered in 4 parts: 'Planning, equipping and controlling a central kitchen'; 'The general technology of cooking, packing and freezing of pre-cooked foods'; 'The preparation and cooking of foods for freezing'; and 'Mass catering with precooked frozen foods'. JN

437

[Frozen food production manual.] Spravochnik po proizvodstvu zamorozhennykh produktov. [A book]

Burmakin, A. G.

464 pp. (1970) [104 ref. Ru] Moscow, USSR:

Izdatel'stvo Pishchevaya Promyshlennost.

Price 1.47 rouble

This manual, intended for technical personnel in the frozen food industry, consists of the following chapters: Characteristics of raw materials used in frozen food production (pp. 3-52); Technology of frozen vegetables and fruit and of their products (pp. 53-100); Special characteristics of preparation and freezing of different vegetables and fruit (pp. 101-46);

Technology of quick-frozen dishes and semi-manufactured products (pp. 147-205); Freezing methods and thermal calculations for freezing installations (pp. 206-28); Transport and technical equipment of quick-frozen food factories (pp. 229-369); Manufacture and quality control of frozen foods (pp. 370-83); Packaging and packaging materials (pp. 384-407); Manufacturing hygiene and safety precautions (pp. 408-34); Transport and sale of quick-frozen products (pp. 435-52). SKK

438

[Deep-frozen foods.] Tiefgefrorene Lebensmittel. [A book]

Herrmann, K.

249 pp. ISBN 3 489 70214 X (1970) [Numerous ref. De] Berlin, W. Germany: Paul Parey. Price DM 45

This well-produced book consists of the following sections: General, basic information on the deep-freezing of foods (pp. 11-52); Microbiological composition of deep-frozen foods of animal and vegetable origin, bacterial load and spoilage (pp. 53-67) Foods of animal origin (covers fish, poultry, meat and meat products, milk and dairy products, and eggs and egg products) (pp. 68-124); Foods of vegetable origin (covers vegetables, fruit, fruit products, particularly conc. citrus juices, and potato products) (pp. 125-71); Deep-frozen prepared dishes (pp. 172-85); Bakery

products (pp. 186-88); Ice cream (pp. 189-95); Quality control and testing of deep-frozen foods (pp. 196-210); and Food law regulations (pp. 211-13). An appendix (pp. 214-26) gives the major pronouncements of the W. German Food Laws on deep-frozen foods in general and individually. 18 pp. of ref. and a 5-pp. subject index are included. HBr

439

Quality and stability of frozen foods. Time-temperature tolerance and its significance. [A book]

Van Arsdel, W. B.; Copley, M. J.; Olson, R. L. (Editors)

xv + 384 pp. (1969) [Numerous ref. En] New York, London, Sydney & Toronto: Wiley-Interscience. Price 187s. [Western Utilization Res. and Development Division, Agric. Res. Service, USDA, Albany, California, USA]

This book covers methods of producing frozen foods of the highest quality and of maintaining quality during storage and distribution. Included are the results and conclusions of the 'Time-temperature tolerance' study conducted by the USDA. Chapters are: Introduction, by W. B. Van Arsdel, M. J. Copley & R. L. Olson (pp. 1-18, 42 ref.); Quality-related chemical and physical changes in frozen foods, by E. F. Jansen (pp. 19-42, 75 ref.); Microbiological conditions affecting frozen food quality, by H. D. Michener & R. P. Elliott (pp. 43-84, 72 ref.); Quality and stability in frozen fruits and juices, by D. G. Guadagni (pp. 85-116, 72 ref.); Quality and stability of frozen vegetables, by R. L.

440

[Preparation of frozen foods.] Uprava zmrazenych potraviny. [A book]

Fialova, J. A.

32 pp. (1968) [Cs] Prague: Prace. Price 5.- Kcs.

This guide to preparation of frozen food gives practical advice on the treatment of frozen food to preserve its appearance and prevent loss of nutritive substances. It discusses frozen vegetables and the various ways of preparing them, frozen fruit, fruit purees, semi-manufactured products, soup and vegetable mixtures, food served with vegetables, beverages and ready-to-serve meals. STI

441

Food of the future.

Ghose, T. K.

Process Biochemistry 4 (12) 43-46 (1969) [20 ref. En] [Dept. of Biochemical Engineering, Univ., Jadarpur, India]

The present conventional methods of food production could be supplemented in the future by the preparation of single cell protein from bacteria, yeast and fungi. The large-scale fermentation

systems would utilise hydrocarbon fractions from petroleum and various carbohydrate substrates such as molasses and cellulose. Chemical composition of consumable concentrates from unconventional sources and the economics of their production from different substrates are discussed. WLC

442

Synthetic food. [A book]

Pyke, M.

viii + 145pp. ISBN 0 7195 2060 6 (1970) [Numerous ref. En] London, UK: John Murray. Price £2.25

This book reviews how protein-like substances, fats, carbohydrates, vitamins, alcohol, flavours, odours and colours can be synthesized, and how foods of varying consistency, aroma, colour and appearance might be made. JN

443

Symposium: seed proteins. [Book]

Inglett, G. E. (USA, American Chemical Society) (Editor)

320pp. ISBN 0 87055 117 5 (1972) [many ref. En] Westport, Connecticut, USA, A&I Publishing Co. Inc. Price \$18.00 (USA) \$19.00 (Foreign) [USDA, N. Marketing and Nutr. Res. Div., Peoria, Illinois, USA]

This book contains the proceedings of a symposium on seed proteins held at the American Chemical Society meeting in Los Angeles, California on March 28 to April 2, 1971. There are 5 sections: General outlook; Protein synthesis in seeds; Protein quality and quantity; Seed processing and product properties; and Methodology. Chapter titles are: Seed proteins in perspective, by G. E. Inglett (pp. 1-4); Economics and technology of cereal fortification, by D. Rosenfield & B. L. Berntson (pp. 5-18, 18 ref.); Seeds as a source of protein for humans, by G. R. Jansen (pp. 19-38, 19 ref.); Biosynthesis of proteins in cereals, by A. Dalby, G. B. Cagampang, I. ab I. Davies & J. J. Murphy (pp. 39-51, 31 ref.); The deposition of vacuolar proteins in oilseeds, by J. W. Dieckert II & M. C. Dieckert (pp. 52-85, 41 ref.); Enzyme activities associated with protein bodies of seeds, by R. L. Ory (pp. 86-98, 38 ref.); Protein synthesis in germinating seeds, by J. H. Cherry, J. Kanabus, W. Jachymczyk & M. B. Anderson (pp. 99-113, 27 ref.); [Continued in following abstr.] JN

444

Symposium: seed proteins. [Book]

Inglett, G. E. (USA, American Chemical Society) (Editor)

320pp. ISBN 0 87055 117 5 (1972) [many ref. En]

[Continued from preceding abstr.] Studies on protein quality and quantity of rice, by B. O.

Juliano (pp. 114-125, 28 ref.); Genetic studies of wheat proteins, by V. A. Johnson, P. J. Mattern & J. W. Schmidt (pp. 126-135, 14 ref.); Recent improvements in corn proteins, by E. T. Mertz (pp. 136-143, 16 ref.); Barley seed proteins, by L. Munck (pp. 144-164, 36 ref.); The composition and nutritional properties of protein in selected oat varieties, by W. L. Clark & G. C. Potter (pp. 165-175, 16 ref.); Corn proteins related to grain processing nutritional value of products, by G. E. Inglett (pp. 176-192, 11 ref.); Ultrastructure related to wheat processing and products, by W. Bushuk (pp. 193-211, 60 ref.); Ultrastructure related to cottonseed and peanut processing and products, by H. L. E. Vix, H. K. Gardner, Jr., M. G. Lambou & M. L. Rollins (pp. 212-230, 28 ref.); Soybean ultrastructure and its relationship to processing, by W. J. Wolf (pp. 231-241, 22 ref.); Functional properties of commercial edible soybean protein products, by S. J. Circle & A. K. Smith (pp. 242-254, 51 ref.); Evaluation of the protein value of cereal/plant/oilseed products by human biological assay techniques, by C. Kies (pp. 255-264, 19 ref.); [Continued in following abstr.] JN

445

Symposium: seed proteins. [Book]

Inglett, G. E. (USA, American Chemical Society) (Editor)

320pp. ISBN 0 87055 117 5 (1972) [many ref. En]

[Continued from preceding abstr.]

Determination of protein quantity and quality by x-ray photoelectron spectroscopy, by M. P. Klein & L. N. Kramer (pp. 265-276, 6 ref.); Automatic amino acid analyses for determining the amount and quality of protein in fungal protein and in other protein sources, by W. E. Coleman (pp. 277-283, 13 ref.); Investigations on lipoxygenase and associated lipid-oxidizing systems in dormant peanuts, by A. J. St. Angelo & R. L. Ory (pp. 284-291, 16 ref.); Determination of lysine in cereal proteins, by J. M. Concon (pp. 292-311, 35 ref.); and Concluding commentary on seed proteins, by A. M. Altschul (pp. 312-313). A 6-pp. subject index is appended. JN

446

Soybeans as a food source. [Book]

Wolf, W. J.; Cowan, J. C.

86pp. (1971) [276 ref. En] Cleveland, Ohio, USA, CRC Press Price \$11.50 [Usda, N. Marketing and Nutr. Res. Div., Peoria, Illinois, USA]

This book originally appeared as an article in CRC Critical Reviews in Food Technology [see FSTA (1971) 3 10J1251]. It contains the following chapters: Introduction (pp. 9-10); Seed structure and composition (pp. 10-11); Soybean

production (pp. 11-15); Disposal of the crop (p. 15); Processing soybeans into oil and meal (pp. 15-20); Conversion to edible oil products (pp. 20-25); Soybean oil products (pp. 26-33); Food uses of soybean proteins (pp. 33-77), which discusses physical and chemical properties, forms of soy proteins, selling prices and production estimates, functional properties, nutritional properties, foods containing soy proteins, and problem areas; and Conclusions (p. 77). JA

447

Textured foods and allied products.

Gutcho, M.

Food Technology Review, Noyes Data Corporation 1, x+315pp. ISBN 0 8155 0463 2 (1973) [En] Park Ridge, New Jersey, USA, Noyes Data Corp. Price \$36.00

The information in this book is based on US patents since 1960 relating to the preparation of textured foods and allied products. A few earlier relevant patents are included. The book supplies detailed technical information and can be used as a guide to US patent literature in this field. The table of contents serves as a subject index; company, inventor and patent number indexes are included. Chapters are: Introduction (pp. 1-2); Edible spun protein fibres for meat-like products (pp. 3-91); Other techniques for obtaining meat-like textured foods (pp. 92-182); Simulated meat products (pp. 183-225); Other simulated textured food (pp. 226-265); and Simulated flavouring agents (pp. 266-310). JA

448

Single-cell protein. [A book]

Mateles, R. I.; Tannenbaum, S. R. (Editors)
ix + 480pp. (1968) [Numerous ref. En]

[Continued from the preceding abstr.]

Incorporation of protein isolates into meat analogs, by A. D. Odell (pp. 370-377, 12 ref.); The use of protein isolates in food products, by Z. Berk (pp. 378-383, 16 ref.); Flavouring of some new sources of protein, by C. H. Grimm (pp. 384-385); An approach to acceptability, by M. Milner (pp. 386-388); Sociological and psychological factors affecting the acceptance of new protein sources, by J. C. McKenzie (pp. 391-406, 12 ref.); Problems and prospects of marketing enriched foods, by T. L. V. Blair (pp. 407-417); The introduction of new technology into a developing country, by G. C. Lodge (pp. 418-443, 3 ref.); Factors in industrial participation, by A. J. Dimino (pp. 444-450); Some economic considerations, by M. F. Millikan (pp. 451-454). VJG

449

Single-cell protein. [A book]

Mateles, R. I.; Tannenbaum, S. R. (Editors)

ix + 480pp. (1968) [Numerous ref. En] Massachusetts, USA: Inst. of Tech.

This book, based on papers presented at an International Conference on Single-cell protein, sponsored by the Department of Nutrition and Food Science, held at Massachusetts Institute of Technology, on October 9-11, 1967 is divided into 6 parts: Introduction (pp. 3-7); The world food and nutrition crisis (pp. 11-64); The status of single-cell protein (pp. 67-165); Production of single-cell protein (pp. 169-339); Use of new protein sources (pp. 343-388); Economic and social considerations (pp. 391-454). The following chapters are included: World food problems, by L. Brown (pp. 11-26); The nature of protein needs, by H. N. Monro (pp. 27-47, 71 ref.); The agricultural, scientific and economic basis for low-cost protein foods, by A. M. Altschul (pp. 48-64, 16 ref.); Sources of single-cell protein: Perspective and prospect, by H. J. Bunker (pp. 67-78, 19 ref.); Nutritional factors in single-cell protein, by S. A. Miller (pp. 79-89, 17 ref.); The use of yeast in human foods, by R. Bressani (pp. 90-121, 105 ref.); Single-cell protein in space systems, by P. A. Lachance (pp. 122-152, Numerous ref.); Evaluation of the safety of new food products, by B. L. Oser (pp. 153-162, 6 ref.); Toxicological studies on single-cell proteins, by A. A. Pokrovsky (pp. 163-165); Growth of microorganisms: General, by A. G. Marr (pp. 169-180, 19 ref.) [Continued in the following abstr.] VJG

450

Single-cell protein. [A book]

Mateles, R. I.; Tannenbaum, S. R. (Editors)
ix + 480pp. (1968) [Numerous ref. En]

[Continued from the preceding abstr.] Genetic and environmental control of protein composition, by J. R. DeZeeuw (pp. 181-191, 24 ref.); SCP from yeast and bacteria grown on hydrocarbons, by K. Yamada, J. Takahashi, Y. Kawabata, T. Okada and T. Onihara (pp. 192-207, 15 ref.); Applications of continuous culture, by R. I. Mateles (pp. 208-216, 14 ref.); Cell recovery, by D. I. C. Wang (pp. 217-228, 15 ref.); Industrial production of single-cell protein from carbohydrates, by H. J. Peppler (pp. 229-242, 30 ref.); Industrial production of single-cell protein from hydrocarbons, by G. H. Evans (pp. 243-254); Production of SCP from hydrocarbons: Taiwan, by P. C. Ko and Y. Yu (pp. 255-262, 5 ref.); Production of SCP from hydrocarbons: India, by M. S. Iyengar (pp. 263-267, 8 ref.); Production of SCP from hydrocarbons: Czechoslovakia, by I. Malek (pp. 268-270, 7 ref.); Large scale production of algae, by W. J. Oswald and C. G. Golucke (pp. 271-305, 42 ref.); A new type of food algae, by G. Clement (pp. 306-308, 1 ref.); The production of fungi, by J. H. Litchfield (pp. 309-329, 70 ref.); Future of large-scale fermentation for production of single-cell protein, by A. E. Humphrey (pp. 330-339, 15 ref.); Factors in the processing of single-cell protein, by S. R. Tannenbaum (pp. 343-352, 17 ref.); Product formulation, acceptability, and

promotion, by A. Bacigalupo (pp. 353-369, 13 ref.). [Continued in the following abstr.] VJG

451

Proteins from hydrocarbons. Proceedings of the 1972 Symposium of Aix-en-Provence and Relevant Guideline of the UN Protein Advisory Group.

[Book]

Pontanel, G. de (Editor)

xiii + 285pp. ISBN 12 293950 7 (1972) [many ref. En] Paris VI, France, Comité Scientifique, Symposium d'Aix-en-Provence. Price £5.00 [Foch Res. Centre, Paris, France]

Work on proteins from single-cell organisms, presented at the 1972 Symposium at Aix-en-Provence, and relevant guidelines of the UN Protein Advisory Group are reported under the headings: The present and potential role of yeasts grown on alkanes, by J. C. Senez (pp. 3-26, 30 ref.); The nutritional value of yeast, by C. A. Shacklady & E. Gatumel (pp. 27-52, 11 ref.); Safety evaluation of yeast grown on hydrocarbons, by C. Engel (pp. 53-81, 6 ref.); Conventional and unconventional foods: a medical-nutritional view, by R. Ferrando (pp. 83-108, 36 ref.); Yeasts grown on alkanes and food requirements: the United Nations recommendations, by M. Autret (pp. 109-128); Note on utilization of yeasts for human consumption, by M. Autret & J. P. le Roux (pp. 129-148, 22 ref.); The psycho-sociological problems involved in reactions to new foods by J. Yudkin (pp. 149-163); Alkane grown yeast, by E. J. Bigwood (pp. 165-187, 9 ref.); The future outlook for feeding the human race: the PAG's recommendations Nos. 6 and 7, by N. S. Scrimshaw (pp. 189-213, 6 ref.); PAG statement No. 4 on single cell protein (pp. 219-230, 2 ref.); PAG guideline No. 6 for pre-clinical testing of novel sources of protein (pp. 231-251, 27 ref.); [Continued in following abstr.] JN

452

Proteins from hydrocarbons. Proceedings of the 1972 Symposium of Aix-en-Provence and Relevant Guideline of the UN Protein Advisory Group.

[Book]

Pontanel, G. de (Editor)

xiii + 285pp. ISBN 12 293950 7 (1972) [many ref. En]

[Continued from preceding abstr.] PAG guideline No. 7 for human testing of supplementary food mixtures (pp. 252-264, 12 ref.); PAG guideline No. 8 on protein-rich mixtures for use as weaning foods (pp. 265-270); and PAG guideline No. 2 on the production of single cell protein for human consumption (pp. 271-275 5 ref.). A 3-pp. author index and a 5-pp. subject index are appended. JN

453

Evaluation of novel protein products. [A book]

Bender, A. E.; Kihlberg, R.; Löfqvist, B.;

Munck, L. (Editors)

ix + 390pp. (1970) [Numerous ref. En] Oxford, UK: Pergamon Press Ltd. Price £7.00

Proceedings of the International Biological Programme (IBP) and Wenner-Gren Center Symposium on 'Evaluation of novel protein products' held in Stockholm, Sept. 11-13, 1968, are presented. Papers included are: The treatment of the nutrition problems in the science of economics, by J. Vogt (pp. 5-13, 9 ref.); Human protein requirements and malnutrition, by J. C. Waterlow (pp. 15-21, 24 ref.); Food habits and taboos and the potentials of 20th century food science and technology, by S. A. Goldblith (pp. 23-32, 6 ref.); Strategy in the evaluation of novel protein foods, by C. G. King (pp. 33-38, 8 ref.); Oilseed protein as related to the world food problem, by A. M. Altschul (pp. 41-53, 7 ref.); Fish protein, by G. Borgström (pp. 55-76); Animal husbandry proteins, by P. E. Andersen & M. Jul (pp. 77-83, 9 ref.); New cereal varieties with high protein quality, by L. Munck (pp. 85-86); Leaf proteins, by N. W. Pirie (pp. 87-91, 22 ref.); Single-cell protein, by L. Enebo (pp. 93-103, 8 ref.); Amino acid supplementation and the world food problem, by G. R. Jansen (pp. 105-114, 10 ref.); Nutritional evaluation of proteins by laboratory animals, by B. O. Eggum (pp. 117-128, 29 ref.); Nutritional evaluation of proteins by chemical methods, by K. J. Carpenter & J. Bjarnason (pp. 161-169, 34 ref.). [Continued in following abstr.] VJG

454

Evaluation of novel protein products. [A book]

Bender, A. E.; Kihlberg, R.; Löfqvist, B.;

Munck, L. (Editors)

ix + 390pp. (1970) [Numerous ref. En]

[Continued from preceding abstr.]

Determination of free and protein-bound amino acids, by D. Eaker (pp. 171-194, 6 ref.); Determination of available lysine by column chromatography, by H. Ruderus & R. Kihlberg (pp. 195-201, 14 ref.); Estimation of protein content and quality by dye binding, by R. Mossberg (pp. 203-209, 19 ref.); Nutritional evaluation of proteins by enzymatic methods, by J. Mauron (pp. 211-234, 44 ref.); Protein evaluation by microorganisms, by K. Guggenheim (pp. 235-245, 34 ref.); Microbiological determination of amino acids by the cup-plate method, by A. E. Bolinder (pp. 247-257, 7 ref.); Nutritive evaluation of protein quality with *Tetrahymena pyriformis* W., by P. Helms & G. Rolle (pp. 259-264, 6 ref.); The safety evaluation of new sources of protein for man, by B. L. Oser (pp. 267-275, 2 ref.); Determination of toxic split products from glucosinolates in seed meals of some Cruciferae plants, by E. Josefsson (pp. 277-283, 20 ref.); Radio-immuno assays as a means of determining small quantities of specific proteins, by J. Porath (pp. 285-286, 5 ref.); Fish protein hydrolysate - requirements of production in

relation to possible toxin formation, by W. Schmidtsdorff (pp. 287-291, 9 ref.); Microbiological examination of proteins with special reference to pathogenic and toxic microorganisms, by T. Nilsson (pp. 293-301, 14 ref.); Functional evaluation of protein in food systems, by E. J. Briskey (pp. 303-312, 47 ref.). [Continued in following abstr.] VJG

455

Evaluation of novel protein products. [A book] Bender, A. E.; Kihlberg, R.; Löfqvist, B.; Munck, L. (Editors) ix + 390pp. (1970) [Numerous ref. En] [Continued from preceding abstr.] Analytical criteria for the effects of processing and storage on proteins, by B. L. Oser (pp. 315-317, 1 ref.); Factors affecting the nutritive value of protein foods, by A. E. Bender (pp. 319-330, 51 ref.); Effect of processing on the nutritional value of fish protein concentrate, by B. Hallgren (pp. 331-337, 2 ref.); Preventing the deterioration of raw materials and products, by F. Bramsnaes (pp. 339-352, 28 ref.); Preventing the deterioration of protein sources and products, by R. Nilsson (pp. 353-356); Proteins in our time, by G. Ehrensward, (pp. 359-361); and The challenge of protein-calorie malnutrition, by J. C. Waterlow (pp. 363-365). VJG

BEVERAGES — WINE, SPIRITS, TEA,

COFFEE, WATER

456

[Effect of gamma radiation on soft drinks and wine and brandy products.] Deistvie gamma izlucheniya na bezalkogol'nye napitki i vinnokon yachnye izdeliya. [A book] Bregvadze, U. D. 130pp. (1970) [263 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya promyshlennost'. Price 0.45 rouble

Effects of γ -radiation of beverages carried out at the Research Institute of the Food Industry in Georgia, USSR, are discussed. Individual chapters cover: elimination of flavour defects in mineral waters by means of γ -radiation; application of γ -radiation to semi-sweet wines and brandies; application of γ -radiation to fruit juices; and use of γ -radiation for water purification. STI

457

Beverage literature: a bibliography. [A book] Noling, A. W. 865pp. ISBN 0 8108 0352 6 (1971) [En] Metuchen, New Jersey, USA: Scarecrow Press, Inc. Price £10.00
This book, based primarily on the holdings of the Hurty-Peck library in Southern California, USA,

gives a comprehensive list of the authors and titles of English-language publications on beverages. Main sections are the Author list (pp. 19-492); Subject list (pp. 493-669); and Short title list (pp. 673-838). Appendices include lists of standard reference works consulted, guide to books in author list containing bibliographies, glossaries etc., and major libraries specializing in fields relating to beverages. HBr

458

Food beverage service handbook. A complete guide to hot and cold soft drinks. [A book] Thorner, M. E.; Herzberg, R. J. ix + 318pp. ISBN 0 87055 087 x (1970) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc. Price \$18.00 (US) \$19.00 (Foreign) [Culinary Inst. of America, New Haven, Connecticut, USA]

This service manual gives a comprehensive account of the background, handling and service of a wide variety of non-alcoholic beverages. Personnel at all levels of the food service industry will find this book a useful and informative guide, and it should help solve problems arising from mishandling, faulty dispensing, etc. Chapters are: Introduction (pp. 1-7, 5 ref.); Sensory evaluation of beverages (pp. 8-21, 13 ref.); Spoilage of beverages (pp. 22-53, 45 ref.); Coffee (pp. 54-115, 51 ref.); Soft drinks (pp. 116-49, 17 ref.); Dairy beverages (pp. 150-74, 10 ref.); Milk and milk products substitutes (pp. 175-86, 9 ref.); Juices (pp. 187-214, 14 ref.); Tea (pp. 215-27, 6 ref.); Cocoa beverages (pp. 228-37, 10 ref.); Water (pp. 238-57, 10 ref.); and Sanitation (pp. 258-86, 23 ref.). A glossary of relevant terms (pp. 287-90) is included. The appendix (pp. 291-309) covers thermometers, the Abbe refractometer, the coffee hydrometer, measurement of soluble solids with a hydrometer, and the Brix hydrometer. JA

459

[Beverages from A to Z.] O napojoch od A do Z. [A book] Matuska, P. 188pp. (1968) [Sk] Bratislava: SVPL. Price 13,- Kcs.

The importance of drinks as a necessary part of nutrition is discussed. The book includes chapters on water, milk, and milk drinks, vegetable drinks, fruit drinks, fruit wines, vinegars, grape wine, the types of wines produced in Czechoslovakia, beer, spirits and liquors, mixed drinks and various other kinds of drinks. It also mentions suitable supplements to drinks, gives advice on serving drinks and explains some of the less usual terms. STI

460

Principles of water quality control. [Book] Tebbutt, T. H. Y.

ix + 179pp. SBN 08 016127 8 (flexicover), 08 016128 6 (hard cover) (1971) [many ref. En] Oxford, UK, Pergamon Press Ltd. Price £1.50 [Dept. of Civil Eng., Univ., Birmingham, UK]

This book is intended for civil engineering students and as preliminary reading for post-graduate courses in public health engineering and water resources technology. Chapters are: Introduction (pp. 1-5, 3 ref.); Characteristics of waters and waste waters (pp. 6-16, 2 ref.); Basic analysis (pp. 17-27, 5 ref.); Basic microbiology (pp. 28-38, 4 ref.); Biological oxidation of organic matter (pp. 39-52, 4 ref.); River pollution (pp. 53-68, 8 ref.); Quantities of water and waste water (pp. 69-76, 4 ref.); Introduction to treatment processes (pp. 77-81, 1 ref.); Sedimentation (pp. 82-95, 5 ref.); Coagulation (pp. 96-104, 2 ref.); Flow through porous media (pp. 105-114, 8 ref.); Aerobic biological oxidation (pp. 115-128, 5 ref.); Anaerobic biological oxidation (pp. 129-134, 4 ref.); Disinfection (pp. 135-140, 2 ref.); Softening (pp. 141-148, 3 ref.); Sludge dewatering and disposal (pp. 149-156, 5 ref.); Water reclamation (pp. 157-165, 7 ref.); and Treatment plant design (pp. 166-173, 5 ref.). JA

461

[Syrups for the production of beverages.] Syropy lemoniadowe. [A book] Swiezynski, T.

79pp. (1968) [Pl] Warsaw: ZWCRS Price 10 zl. Basic raw materials for the production of non-alcoholic beverages: water, sugar, sweetening agents, edible acids, fruit juices, essential oils, caffeine, salt, colouring, are discussed. Polish standards for the production of non-alcoholic sparkling drinks with the addition of various kinds of syrup are given. STI

462

The soft drinks bottler. Vol. II. [A book] Beattie, G. B. 204pp. (1958) [Numerous ref. En] Twickenham, Middlesex: National Association of Soft Drinks Manufacturers Ltd.

This elementary guide to soft drinks technology contains the following chapters: 'The bottle and the bottle-cleaning department' (pp. 7-17, 34 ref.); 'Heat, detergents and pH' (pp. 18-25, 65 ref.); 'Efficiency and the bottle-washing machine' (pp. 26-36, 11 ref.); 'Summary of common container-washing problems' (pp. 37-47, 40 ref.); 'Organized control or 'just making do'' (pp. 48-60, 122 ref.); 'Fixing labels and washing them off' (pp. 61-69, 67 ref.); 'The closure and closing equipment' (pp. 70-79, 87 ref.); 'Diverse latter-day devices discussed' (pp. 80-85, 46 ref.); 'Routine 'sighting' and the modern inspector' (pp. 86-90, 39 ref.); 'Introduction to syphons - dotting each i' (pp. 91-93, 36 ref.); 'Notes on unsweetened and dietetic beverage production' (pp. 100-103, 39 ref.); 'Key points on varieties of

unconcentrated still drink' (pp. 104-112, 43 ref.); 'Squashes and cordial' (pp. 111-16, 41 ref.); 'Botanical brewing: the brewer and his job' (pp. 117-23, 58 ref.); 'On pasteurization and how it should go' (pp. 124-29, 58 ref.); 'Trucks, conveyors and other handling equipment' (pp. 130-37, 37 ref.); 'The model plant and its layout' (pp. 138-48, 65 ref.); 'Low temperatures: keeping cool' (pp. 149-52, 26 ref.); 'Effective cleaning as a routine' (pp. 153-58, 45 ref.); 'Rational spoilage prevention and the bottler' (pp. 159-67, 65 ref.). 2 Appendices give addenda and corrigenda for Vol. I (p. 168, 21 ref.) and a glossary of trade terms (pp. 169-77, 12 ref.). A subject index and indices to tables and line figures are included. JA

463

Fruit juice technology. [A book]

Gutterson, M.

Food Processing Review, Noyes Data Corporation 15: 206pp. (1970) [En] Park Ridge, New Jersey, USA: Noyes Data Corp. Price \$35

This book is based on US Patents relating to the production of fruit juice, and covers essential developments since 1960. The subject is covered under the chapter headings: Manufacturing techniques; Concentration of fruit juices; Stabilization processes; Dehydration; Freeze-drying; Flavours from fruit juices; Miscellaneous processes. A company index, inventor index and US Patent number index are provided. JN

464

[Fruit and vegetable juices.] Plodovye i ovoshchnye soki. [A book]

Daskalov, P. [Kh.]; Aslanyan, R. M.;

Tenov, R. S.; Zhivkov, M. A.; Boyadzhiev, R. A. 424pp. (1969) [Numerous ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennosti'. Price 2.11 rouble

This is a translation from the Bulgarian original, published by the 'Tekhnika' Publishing House (yr not given.) Sections are: Chemical composition of fruit and vegetable juices (pp. 9-24); Anatomical, physiological and fermentative characteristics of fruit which influence juice yield (pp. 24-31); Production of fruit and vegetable juices (pp. 155-98); Preparation of (pp. 151-55); Methods of preserving fruit and vegetable juices (pp. 155-98); Preparation of fruit and vegetable juices for marketing (i.e. bottling and ancillary processes) (pp. 198-243); Microflora of fruit and vegetable juices (pp. 244-68); Changes in the chemical composition of juices (pp. 268-87); Fruit juices (pp. 287-374); Vegetable juices (pp. 374-406); and Fruit and vegetable powders (pp. 406-11). An 8-pp. bibliography (covering literature up to 1963) is appended. HBr

465 2

Fruit and vegetable juice. Processing technology. [A book]

Tressler, D. K.; Joslyn, M. A. (Editors)
2nd edition xi + 486pp. ISBN 0 87055 098 5 (1971)
[Numerous ref. En] Westport, Connecticut, USA: AVI
Publishing Co. Inc. Price \$28 (US) \$29 (Foreign)

This is a completely new version of the 1961 edition. It covers methods of manufacture, preservation, concn. and packaging of all important fruit and vegetable juices. Chapters are: Historical and economic aspects of the juice industry, by D. K. Tressler (pp. 1-30, 37 ref.); Orange and tangerine juices, by M. K. Veldhuis (pp. 31-91, numerous ref.); Grapefruit juice, by M. K. Veldhuis (pp. 92-124, numerous ref.); Lemon and lime juices, by H. E. Swisher & L. H. Swisher (pp. 125-154, numerous ref.); Pineapple juice, by F. P. Mehrlich, revised by G. E. Felton (pp. 155-185, 30 ref.); Apple juice, by J. C. Moyer & H. C. Aitken (pp. 186-233, numerous ref.); Grape juice, by C. S. Pederson (pp. 234-271, 45 ref.); Cherry, berry and other miscellaneous fruit juices (including strawberry, blueberry, cranberry, redcurrant and blackcurrant), by D. K. Tressler, V. L. S. Charley & B. S. Luh (pp. 272-301, numerous ref.); Tropical fruit beverages (including passion fruit, guava, mango, papaya, banana, limeade and lemonade), by B. S. Luh (pp. 302-346, numerous ref.); Nectars, pulpy juices and fruit juice blends (including apricot, peach, pear, prune, cranberry, citrus and pineapple), by B. S. Luh (pp. 347-396, numerous ref.); Imitation fruit flavoured beverages and fruit juice bases, by G. F. Phillips (pp. 397-437, 19 ref.); Tomato juice and tomato juice blends, by S. Leonard (pp. 438-460, numerous ref.); Vegetable juices, by C. S. Pederson (pp. 461-481, 39 ref.). VJG

466

[Production of fruit juices utilizing enzymatic substances.] Proizvodstvo plodovo-jagodnykh sokov s primeneniem fermentnykh preparatov. [A book]

Mikeladze, G. G.
49pp. (1968) [Ru] Moscow: CINTI-Pishcheprom
Price 18 k.

This booklet considers the factors influencing fruit juice extraction, and enzymatic substances and their role in fruit juice production. ST¹

467

Tea. [Book]

Shalleck, J.
vi + 136pp. SBN 670 69402 9 (1972) [many ref. En] New York, 10022, USA, Viking Press Inc.
Price \$10.95

This history of tea covers the subject under the chapter headings: Beginnings (pp. 3-17); The Japanese tea ceremony (pp. 18-25); Tales of tea (pp. 26-31); Commerce in tea (pp. 32-44); Poison or panacea? (pp. 45-54); Tea and empire (pp. 55-

68); The tea disease (pp. 69-93); Tea and revolution (pp. 94-110); The American tea trade (pp. 111-118); and Tea made simpler (pp. 119-133). JN

468

[Tea analysis.] Teeanalyse [A book]

Hörhammer, L.
3rd edition 74pp. (1970) [De] Berlin, W. Germany: Springer-Verlag

This is a new revision of a work first published in 1955 under the auspices of the Institute of Drug Science at the University of Munich. Designed to provide a means of identification of various plants which may be found in tea or tea blends, it consists of 2 main parts: a description of the main features, microscopical characteristics and chemical constituents of 275 such plants, and a series of 50 photographic plates. The plants are divided as follows (with the number described in parenthesis): leaf (30), herbaceous plant (77), flower (34), fruit (24), seed (8), wood (7), cortex (25), root (36), rhizome (12), other (22). The Latin and common German names are given for each plant. A 6-pp. index is included. HBr

469

Soluble tea production processes. [A book]

Pintauro, N.
Food Processing Review, Noyes Data Corporation 11:
183pp. (1970) [En] Park Ridge, New Jersey: Noyes
Data Corporation. Price \$35

This industrially oriented review, based on US patents, of processes for producing soluble tea serves a double purpose in that it supplies detailed technical information and can be used as a guide to the US patent literature in this field. Much of the legal jargon in the patents has been eliminated. The table of contents is organized in such a way as to serve as a subject index. Other indexes by company, inventor and patent number are also included. Chapters are: 'Withering and rolling' (pp. 3-9); 'Fermentation, firing and sorting' (pp. 10-27); 'Extraction' (pp. 28-63); 'Recovery of aroma' (pp. 64-91); 'Tannin-caffeine precipitate (cream)' (pp. 92-126); 'Filtration and concentration' (pp. 127-42); 'Dehydration processes' (pp. 143-62); 'Agglomeration and aromatization' (pp. 163-79). Some of the patents described relate to coffee processing, but the general approach and principles can be applied to soluble tea production. JA

470

[Tea, its varieties, properties and use.] Chai, ego tipy, svoystva, upotreblenie. [A book]
Pokhlebkina, V. V.
136pp. (1968) [Ru] Moscow: Izdatel'stvo
"Pishchevaya Promyshlennost'"

471

[**Equipment for factories of the fermentation industry.**] Tekhnologicheskoe oborudovanie predpriyatii brodil'noi promyshlennosti. [Book] Popov, V. I.; Kretov, I. T.; Stabnikov, V. N.; Andreev, K. P. 591pp. (1972) [21 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.51 roubles

This book deals with basic equipment for malt, spirits, beer, soft drinks and yeast manufacture. Equipment and operations are described. The 1st part entitled 'Machines and apparatus for treatment of raw materials' has the following chapters: Grain cleaning and sorting machines; Potato washing machines; and Grain and malt grinding machines. The 2nd part 'Machines and apparatus for malt production' contains the following chapters: Malt production process and machinery used; Pneumatic malting plants; Malt drying; Malt processing machines; and Automation. The 3rd part 'Machines and apparatus for alcohol production' contains the following chapters: Alcohol production from starchy raw materials and apparatus used; Apparatus for yeast cultivation; Alcohol manufacture from molasses, and Automation. The 4th part 'Machinery for the production of spirits' contains the following chapters. Vodka and other spirits production and machinery used; Filtration equipment; and Distillation equipment. Other sections deal with: equipment for beer production; soft drink production equipment and machinery; yeast production machinery; bottling machines; and bottle washing machines. STI

472

[**Maintenance of equipment in breweries.**] Remont oborudovaniya pivovarenykh zavodov. [Book] Glavinskii, D. G. 152pp. (1971) [24 ref. Ru] Moscow, USSR, Pishchevaya Promyshlennost'. Price 0.73 r

Problems of maintenance in breweries are discussed. The main chapters deal with: wear of equipment; organization of maintenance; organization of supplies for maintenance purposes; maintenance operations; characteristic features of equipment maintenance; finishing operations e.g. varnishing and control; and safety. STI

473

[**Brewing enzymology.**] Pivovarska enzymologie. [A book] Lhotsky, A. 332pp. (1971) [282 ref. Cs] Prague, Czechoslovakia: SNTL. Price 35.0 Kcs

This book is divided into 3 parts dealing with general properties of enzymes, their occurrence, characteristics and classification; enzymes of commercial importance and the mechanism of their activities in technological processes; and enzymes used in the brewing and malting industry and their application in beer and malt processing. STI

474

Malting and brewing science. [A book] Hough, J. S.; Briggs, D. E.; Stevens, R. ix 678pp. SBN 412 09970 5 (1971) [Numerous ref. En] London, EC 4, UK: Chapman & Hall Ltd. Price £10 (UK only) [British School of Malting and Brewing, Dept. of Biochem., Univ., Birmingham, UK]

This book gives an up-to-date account of biological, biochemical and chemical aspects of malting and brewing. It presents scientific principles for selection of raw materials and their processing, including brief descriptions of equipment used. Wherever possible, details of practice are related both to the scientific background, and to historical reasons and present economics. Although the book has an emphasis on British practice, descriptions are given of methods used in other parts of the world. It will be of value to all concerned with the malting and brewing industries, and with allied industries such as vinegar production. Chapters are: Outline of malting and brewing (pp. 1-12, 18 ref.); Barley (pp. 13-35, 17 ref.); Some physiological aspects of malting barley (pp. 36-53, 29 ref.); Biochemistry of malting (pp. 54-107, 29 ref.); Technology of malting and kilning (including physical principles of barley drying) (pp. 108-148, 60 ref.); Evaluating malting, some special malting methods, and special malts (pp. 149-169, 49 ref.); Brewing water (pp. 170-1 ref.); Chemistry and biochemistry of mashing (pp. 196-235, 83 ref.); Preparation of grist (pp. 236-254, 15 ref.); Mashing (pp. 255-288, 31 ref.); Brewing sugars and wort syrups (pp. 289-299, 14 ref.); Hops (pp. 300-323, 23 ref.); Chemistry of hop constituents (pp. 324-349, 33 ref.); [Continued in following abstr.] JA

475

Malting and brewing science. [A book] Hough, J. S.; Briggs, D. E.; Stevens, R. ix 678pp. SBN 412 09970 5 (1971) [Numerous ref. En] [Continued from preceding abstr.] Chemistry of wort boiling and hop extraction (pp. 350-386, 111 ref.); Methods of wort boiling and hop extraction (pp. 387-408, 32 ref.); Biology of yeasts (pp. 409-440, 64 ref.); Metabolism of wort by yeast (pp. 441-479, 30 ref.); Yeast growth (pp. 480-504, 62 ref.); Brewery fermentations (pp. 505-536, 64 ref.); Beer treatment (pp. 537-571, 26 ref.); Microbiological contamination in breweries (pp. 572-598, 54 ref.); and Beer quality (pp. 599-648, 135 ref.). A list is included of relevant technical journals. Also included are useful tables (e.g. sp. gr. table) and a subject index. JA

476

[**Brewing barleys in the Soviet Union.**] Pivovarennye yachmeni Sovetskogo Soyuza. [A book] Zubenko, A. P. 208pp. (1971) [Numerous ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.84 rouble

This book, intended for brewing specialists, agricultural workers and students specializing in brewing, consists of the following chapters: Cultivation of barley and its economic significance (pp. 8-22); biological characteristics of barley (pp. 22-38); Demands of brewing barleys on their environmental conditions (pp. 38-50); Distribution of brewing barley in the USSR (pp. 50-104); Characteristics of brewing barley (pp. 104-171); Methods of testing brewing barley (pp. 171-175); Characteristics of brewing barleys grown in the USSR (pp. 175-197); and Standardization of brewing barley (pp. 197-199). A 7-pp. bibliography is appended. HBr

477

[**Technology of beer and soft drink production.**] Tekhnologiya piva i bezalkogol'nykh napitkov. [A book]

Chukmasova, M. A.; Rudolf, V. V.
503pp. (1971) [16 ref. Ru]

This book, approved by the Ministry of the Food Industry of the USSR as a textbook for technical colleges with food departments, consists of the following chapters: Raw materials and semi-manufactured products for the production of beer and kvass (pp. 8-80), and of non-alcoholic beverages (pp. 80-109); Packaging and packaging materials (pp. 109-120); Production of brewer's malt (pp. 121-235); Production of rye malt (pp. 235-245); Production of brewer's wort (pp. 246-310); Fermentation (pp. 310-381); Accelerated and continuous beer production (pp. 381-389); Finished beer and its quality (pp. 389-398); Production of kvass (pp. 399-418); Production of non-alcoholic beverages (pp. 418-449); Bottling and preparation of finished product (pp. 450-467); Storage and distribution (pp. 467-468); Bookkeeping and production losses (pp. 468-487); and Utilization of waste materials (pp. 487-494). HBr

478

[**The brewery in pictures.**] Die Brauerei im Bild. [A book]

Zentgraf, G.
xii + 282pp. (1971) [De] Nuremberg, German Federal Republic: Hans Carl

This well produced, profusely illustrated and practically oriented textbook is divided into 2 basic sections: malting of the barley (pp. 3-69) and brewing of the malt (pp. 70-245), with additional sections on production of non-alcoholic beverages (pp. 247-253) and energy, machinery and control aspects (pp. 254-277). The text is deliberately kept to a minimum, as the approach is primarily visual. A 4-pp. subject index is included. HBr

479

[**Reorganization in the brewing and malting industries.**] Die Rationalisierung in der Brau- und Malzwirtschaft. [A book]

Krüger, R. (Editor)
123pp. (1971) [Numerous ref. De] Nuremberg, German Federal Republic: Verlag Hans Carl

This book, published to honour the 70th birthday of Franz Kinnebrock, includes the following chapters: Bottling of carbonated beverages using high-capacity equipment, by F. Berg (pp. 16-28); Costing as means of efficiency control in malting, by E. Biegans (pp. 29-40); Management decisions influencing taxation, by E. Bittner (pp. 41-48); Senior personnel - the third force, by R. Eschenbach (pp. 49-57); Marginal costing in practice and its economic significance, by R. Hoffmann (pp. 58-68); Use of computers for rationalization of management, by R. Krüger (pp. 69-79); Effect of solution characteristics of malt on wort composition and beer quality, by B. Mändl (pp. 80-91); Thoughts on investment efficiency in the brewing industry to ensure sales, by W. Menz (pp. 92-102); and Status of German malting technology, by L. Narziss (pp. 103-111). A list of F. Kinnebrock's publications is appended. SKK

480

[**Modern brewing technology.**] [A book]

Findlay, W. P. K. (Editor)
xii + 352pp. SBN 333 12463 4 (1971) [Numerous ref. En] London, UK: Macmillan Press. Price £9.50

Progress made in brewing technology is reviewed in the following chapters: Economics of wort production, by J. O. Harris (pp. 1-30, 19 ref.); Hops and their use in brewing, by P. R. Ashurst (pp. 31-59, 21 ref.); Wort boiling and cooling, by M. G. Royston (pp. 60-82, 27 ref.); Fermentation systems, by R. W. Ricketts (pp. 83-107, 11 ref.); Classification and selection of yeast strains, by R. B. Gilliland (pp. 108-128, 108 ref.); Biochemistry of brewing, by T. Wainwright (pp. 129-163, 197 ref.); Spoilage organisms in brewing, by R. G. Ault & R. Newton (pp. 164-197, 64 ref.); Brewing hygiene and biological stability of beers, by R. G. Ault & R. Newton (pp. 198-218, 31 ref.); Techniques of yeast separation, by F. O. Robson (pp. 219-232, 13 ref.); Clarification of beer, by J. T. Johnstone & D. J. Whitmore (pp. 233-253, 12 ref.); Non-biological beer hazes, by N. S. Curtis (pp. 254-291, 197 ref.); The role of the analytical laboratory in modern brewing, by L. R. Bishop (pp. 292-323, 134 ref.); Treatment and disposal of effluents, by G. D. Miles & B. A. Southgate (pp. 324-344, 24 ref.). VJG

481

[**Microbiological control in the production of beer and non-alcoholic beverages.**] Mikrobiologicheskii

kontrol' proizvodstva piva i bezalkogol'nykh napitkov. [A book]
Zhvirblyanskaya, A. Yu.
158pp. (1970) [40 ref. Ru] Moscow, USSR:
Izdatel'stvo Pishchevaya Promyshlennost' Price
0.49 rouble

This book, intended primarily for engineers and technicians in the brewing and non-alcoholic beverages industry, contains the following chapters: Laboratory equipment for microbiological control (pp. 7-9); Basic methods and techniques of microbiological analysis (pp. 9-49); Pure cultures for production of beer and kvass (pp. 49-70); Microbial contaminants in brewing (pp. 70-101); Microbiological control in brewing (pp. 101-115); Microbial contaminants in non-alcoholic beverages production and methods of microbiological control (pp. 116-125); General bacteriological and sanitary control (pp. 126-140); and Disinfection and production hygiene (pp. 141-153). HBr

482

[Beer.] Das Bier. [A book]
Rinke, W.
195pp. (1967) [268 ref. De] Berlin & Hamburg: Paul
Parey. Price DM 30.00

Well-known facts and new research are reviewed in this book. The theoretical section includes the following chapters: 'Raw materials' (pp. 11-28); 'Production of malt' (pp. 28-49); 'Production of beer' (pp. 49-85). In the analytical section (pp. 86-181) there is a useful description of methods for analysing barley, hops, hop extracts, water, malt, wort and beer. The book will be of interest to students, brewers and scientists. INe

483

Fermentation of synthetic media containing glucose and maltose by brewer's yeast.

Griffin, S. R.
Journal of the Institute of Brewing 76 (1) 45-47
(1970) [6 ref. En] [Brewing Ind. Res. Foundation,
Nutfield, Redhill, Surrey, England]

Brewer's yeast previously cultured on either glucose or maltose as the sole source of carbohydrate has a period of exclusive utilization of glucose when grown on synthetic media containing glucose and maltose. Only when glucose has fallen to a low level does fermentation of maltose begin. This behaviour is thought to be due to an effect of glucose on the maltose permease. AS

484

The role of oxygen in brewery fermentations.
Markham, E.
Wallerstein Laboratories Communications 32 (107) 5-14 (1969) [23 ref. En, fr, es, de] [Arthur
Guinness Son & Co. (Dublin) Ltd., St. James's Gate

Brewery, Dublin 8, R. of Ireland]

The role of O_2 in fermentation is considered under the following headings: general role of O_2 in yeast metabolism, kinetics of O_2 uptake, propagation of brewery yeast contrasted with baker's yeast, and repressive effects of high concn. of glucose. Recent work in the author's lab. on the desirable level of oxygenation of wort prior to pitching (20% O_2 saturation) is described. VJG

485

[Equipment in fermentation industry factories.]
Oborudovanie predpriyatiy fermentnoi promyshlennosti. [A book]
Koloskov, S. P.
384pp. (1969) [56 ref. Ru] Moscow, USSR:
Izdatel'stvo Pishchevaya Promyshlennost'. Price
1.21 Roubles

This illustrated handbook, intended for students of technical subjects and also for technical personnel in the fermentation ind., consists of the following chapters: Machinery and equipment for vat-culturing of moulds and for comminuting cultures' (pp. 7-62); 'Principles of calculation in production of mould cultures and enzyme preparations' (pp. 62-86); 'Mechanized installations for continuous-process culturing of moulds on solid media' (pp. 86-134); 'Machinery and equipment for tray culturing of moulds on solid media' (pp. 134-61); 'Mould culture driers' (pp. 162-81); 'Equipment for enzyme extraction from mould cultures' (pp. 182-94); 'Machinery for solid phase separation from enzyme solutions' (pp. 194-202); 'Equipment for dialysis and electrodialysis purification of enzyme extracts' 378 (pp. 203-15); 'Machinery and equipment for deep culturing of micro-organisms' (pp. 216-74); 'Machinery and equipment for aeration of deep culture fermenters with air freed from dust and equipment for production of enzyme preparation micro-organisms' (pp. 274-85); 'Machinery and (pp. 203-15); 'Machinery and equipment for from moulds in deep culture' (pp. 285-328); 'Concentration equipment for enzyme solutions' (pp. 328-49); 'Equipment for precipitation and drying of enzyme preparations' (pp. 350-59); 'Machinery and equipment for treatment of enzyme precipitates' (pp. 359-63); 'Drying of spent biomass' (pp. 363-65); 'Safety precautions in production of cultures and preparations' (pp. 366-68); 'General information about economics of use of fermentation cultures and preparations' (pp. 368-70); and 'Enzyme production methods in other countries' (pp. 370-76). SKK

486

[Pneumatic chest storage unit for moving malt.]
Pneumaticka skrinova sladovna s presunovacem sladu. [A book]

Skop, Ja. F., Poljanskij, K. V.
18pp. (1968) [Cs] Moskow: Cinti-Pisceprom.

The operation and technical effectiveness of a pneumatic chest storage unit with an arrangement for shifting heaps of malt are described. STI

487

Technology of wine making. [Book]

Amerine, M. A.; Berg, H. W.; Cruess, W. V.
Third edition ix+802pp. ISBN 0 87055 116 7
(1972) [many ref. En] Westport, Connecticut,
USA: AVI Publishing Co. Inc. Price US \$27.00
Foreign \$28.00 [Agric. Expt. Sta., Univ. of
California, Davis, USA]

The subject is covered comprehensively and in great detail under the headings: Wines and wine regions of the world (pp. 1-75); Composition of grapes (pp. 76-137); American wine types and their composition (pp. 138-150); The moulds and yeasts of grapes and wine (pp. 151-176); Chemistry of fermentation and composition of wines (pp. 177-244); Winery design, equipment, operation, and sanitation (pp. 245-356); Red table wine production (pp. 357-379); Production of white table wine (pp. 380-390); Production of sherry (pp. 391-439); Port and other dessert wines (pp. 440-454); Sparkling wine production (pp. 455-487); Wine making in eastern United States (pp. 488-501); Special natural wines: Vermouth and flavoured wines (pp. 502-522); Fruit wines (pp. 523-547); Non-bacterial spoilage (pp. 548-576); Bacterial spoilage (pp. 577-599); Brandy production (pp. 600-643); Winery by-products (pp. 644-676); Evaluation of wines and brandies (pp. 677-730); Legal restrictions on wine making (pp. 731-768). An excellent 33-pp. subject index is included. [See FSTA (1969) 1 7H722 for 2nd edition.] JN

488

[Calculation nomograms for primary winemaking equipment.] Nomogrammy k raschetu oborudovaniya pervichnogo vinodeliya. [Book]

Zaichik, Ts. R.
108pp. (1971) [13 ref. Ru] Moscow, USSR,
Izdatel'stvo Pishchevaya Promyshlennost' Price
0.48 r.

This collection of 100 nomograms accompanied by formulae from which they were derived and explanatory notes is intended for designers and users of winemaking equipment and for students of relevant institutions of higher and secondary learning. SKK

489

[Cold sterilization of wine.] Sterilizatsiya vina kholodnym sposobom. [Book]

Avakyan, B. P.
104pp. (1972) [Ru] Moscow, USSR, Izdatel'stvo
Pishchevaya Promyshlennost'. Price 0.36 r

Chapters included in this paperback comprise: Effects of ultrasonics on the microorganisms and chemical composition of wine; Effects of UV irradiation on the microorganisms and chemical composition of wine; Continuous cold sterilization of wine; and Production experience with continuous cold sterilization of wine. HBr

490

[Physical and chemical characteristics of wine and its constituents.] Fisiko-khimicheskie pokazateli vina i vinomaterialov. [Book]

Subbotin, V. A.; Tyurin, S. T.; Valuiko, G. G.
160pp. (1972) [Ru] Moscow, USSR, Izdatel'stvo
Pishchevaya Promyshlennost'. Price 0.55 r

This paperback book, intended for supervisors and workers in the wine industry and for food science students, covers the subject in the following chapters: Grapes; Pulp; Must; Grape juice; Pulp and must during fermentation; Raw materials and still wines; Carbonated wines; Spirits and brandies; Winery wastes; Secondary products; and Ancillary materials (ethyl alcohol, water/alcohol solution, SO₂, CO₂, water). A series of appendices list the basic characteristics of the wines produced in the USSR and correction coeff. for adjusting the sugar content at any temp. to that at 20°C. HBr

491

[Wine analysis.] Weinanalytik. [Book]

Franck, R.; Junge, C.
Section D Suppl., 20pp. (1971) [D~~8~~] Cologne,
Federal Republic of Germany, Carl Heymanns
Verlag KG.

This is the 1st Supplement (dated 1 Sept. 1971) to the loose-leaf publication "Wine analysis" issued in 1970 [see FSTA (1972) 4 3H439]. In addition to an updating of the existing material, a further section on analytical regulations in the EEC is included in the Supplement. HBr

492

[Biological ageing of wines.] Biologicheskoe starenie vin. [Book]

Martakov, A. A.
175pp. (1972) [many ref. Ru] Alma-Ata, USSR,
Nauka Kazakhskoi SSR. Price 1.11 r

The main chapters of the book deal with: biochemical activity of yeasts during aerobic wine fermentation (pp. 5-37); biochemical activity of yeasts during aerobic must fermentation (pp. 38-76); utilization of redox properties of yeasts in natural wine manufacture (pp. 77-87); and utilization of redox properties of yeasts in strong wine manufacture (pp. 88-163). STI

493

Applied wine chemistry and technology. [A book]

Massel, A.
xxiv 288pp. (1969) [Numerous ref. En] London, UK:
Heidelberg Publishers Ltd. Price £2.75

This book is divided into 5 parts: Viticulture (including grape varieties for white and red wine, rootstocks, soil and its geological

derivatives in 8 wine producing countries, morphology of the vine, vine nutrition, cultivation and pests) (pp. 1-47); Vinification (including sugar tests, must and wine microflora, press house installations, chaptalisation and deacidification, fermentation, vinification procedures in different countries, wine storage cellars and containers) (pp. 49-123); Wine analysis (pp. 125-188); Wine shipment and bottling (including wine instability factors, methods to combat secondary fermentation, filters and filtration, wine bottling procedures) (pp. 189-237); an Appendix (including conversions, relative atomic wt., bibliography of wine literature, buyers' guide, glossary of wine terminology). A 12-pp. index is included. VJG

494

[Handbook of winery. III. Wine chemistry and analysis.] Handbuch der Kellerwirtschaft. 3. Weinchemie und Weinanalyse. [A book] Vogt, E.; Bieber, H.
399pp. (1970) [Numerous ref. De] Stuttgart, W. Germany: Verlag Eugen Elmer

This is a new edition of the 3rd in the comprehensive Handbook of Winery (Handbuch der Kellerwirtschaft) series, the 1st 2 being: Technology of wine, by G. Troost, and Microbiology of must and wine, by H. Schanderl. The book is divided into the following 10 chapters: The grape (pp. 13-29); Grape juice (pp. 30-73); Fermentation (pp. 74-112); Wine production (pp. 113-167); Wine defects and diseases (pp. 168-195); Composition and evaluation of wine (pp. 196-239); Dessert wines, sparkling wines and wine-based beverages (pp. 240-258); Fruit and berry wines (pp. 259-270); Winemaking residues and their utilization (pp. 271-275); and Chemical analysis of wine (pp. 276-394). A 5-pp. subject index is included. The numerous ref. are in the form of running foot-notes to the relevant page. HBr

495

[Wine analysis.] Weinanalytik. [A book] Franck, R.; Junge, C.
420pp. ISBN 3 452 17096 9 (1970) [De] Cologne, W. Germany: Carl Heymanns Verlag KG Price DM 98

This loose-leaf publication, in a sturdy plastics-covered binding, gives general regulations governing the analysis of wine and similar alcoholic beverages, as well as of fruit juices. It is divided into the following sections: sphere of validity; sampling and handling of samples; scope of tests; organoleptic testing; chemical and physical methods of analysing wines, sparkling wines, brandies, distillates, fortified wines and related products; analysis of wines for export; conclusion (including various tables of correction factors etc. and diagrams of analytical apparatus used); and the analytical procedure laid down by the Office International de la Vigne et du Vin (OIV). HBr

496

[Italian wines labelled "Appellation d'origine controle".] Vini italiani portanti una denominazione di origine. [A book] Bruni, B.

2nd Edition 351pp. (1970) [Numerous ref. It] Bologna, Italy: Edizioni Agricole

Brief descriptions and geographical locations are given in alphabetical order of Italian wines permitted to bear a reference to the place of origin. The book is divided into 2 sections: Wines and table wines (pp. 9-275) and Special wines (pp. 277-337), which includes liqueur wines, aromatic wines, fortified wines and sparkling wines. A 9-pp. list of wines in the different districts of Italy is included. HBr

497

Table wines. The technology of their production. [A book]

Amerine, M. A.; Joslyn, M. A.
2nd edition xxi + 997pp. SBN 520 01657 2 (1970) [Numerous ref. En] Berkeley, California, USA: Univ. Press Price \$25.00 [Dept. of Viticulture and Enology, Univ. of California, Davis, USA]

This is a complete revision of the original edition published in 1951. It gives comprehensive coverage of extensive scientific discoveries in the microbiology and biochemistry of wine resulting from improved methods of chromatography, enzyme analysis, neutron activation procedures and atomic absorption spectrophotometry. The 19 chapters are grouped into 6 main sections as follows: Introduction (pp. 3-162); The winery and its equipment (pp. 165-230); Composition and handling of grapes (pp. 233-313); Fermentation, composition and finishing (pp. 317-591); Production of wines (pp. 595-700); and Tasting, analyses and wine disorders (pp. 703-807). 3 appendices are included: A selected, classified and annotated list of references (pp. 811-826); Journals with material on grapes and wine (pp. 829-837); and Experiment stations working primarily on viticultural and enological subjects (pp. 841-846). A complete list of literature cited (pp. 847-965) and a subject index are also included. AB

498

[Biochemistry of winemaking.] Biokhimiya vinodeliya. [A book]

Rodopulo, A. K.
374pp. (1971) [Numerous ref. Ru] Moscow, USSR: Pishchevaya Promyshlennost'. Price 2.66 roubles

This book, designed for use by engineers, technicians and research workers in the wine industry, contains the following chapters: Chemical composition of grape must and wine (pp. 7-137, 498 ref.); Biochemical processes in the processing of grapes and fermentation of the marc (pp. 138-163, 69 ref.); Biochemistry of alcohol fermentation

(pp. 164-243, 250 ref.); Biological acidification and reduction (pp. 244-282, 100 ref.); Biochemical processes in the processing and maturation of winemaking materials (pp. 283-321, 132 ref.); and Biochemical processes in the production of the various types of wine (champagne, port, muscat, madeira, sherry) (pp. 322-370, 108 ref.). HBr

499

[Internal factory transport in the wine-producing industry.] Vnutrizavodskoi transport v vinodel'cheskoi promyshlennosti. [A book]

Zaichik, Ts. R.

111pp. (1971) [11 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.25 rouble

This booklet describes the operating principles of the major types of transport used in Soviet wineries, including loading and unloading equipment, various types of conveyors, hydraulic and pipe-line transport systems, trucks, stackers and destackers, etc. HBr

500

[Secondary materials for winemaking.]

Vspomogatel'nye materialy v vinodelii. [A book] Okhremenko, N. S.; Tyurin, S. T.; Yaroslavtseva, T. A.; Nikolaev, P. I.

240pp. (1971) [117 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.82 rouble

This reference book gives information (such as composition, physical and chemical characteristics) on many of the materials which come into contact with the grape and the wine at all stages of manufacture. These are broken down into constructional and sealing materials, materials used for cooperage, protective surfaces, washing and disinfecting agents, filtering agents, bottling and packaging materials, chemicals used at the grape growing stage, and general purpose materials. A table lists permitted levels of usage of many of the materials covered. HBr

501

Portuguese wine. [A book]

Postgate, R.

102pp. (1969) [En] London UK: J. M. Dent & Sons Ltd. Price 25s.

This book gives information on the origins, growth and properties of Portuguese and Madeiran wines, the main emphasis being placed on the table wines now becoming popular in Britain. Details of the topography and history of wine-producing areas are included. Chapters are: History and development of Portuguese wines (pp. 1-7); Regulations for the protection of the consumer (pp. 9-17); The demarcated wines (pp. 19-49); Undemarcated and sparkling wines (pp. 51-58); Rose wines and brandies (pp. 59-63); Madeira (pp. 65-82); and Port (pp. 83-99). JA

502

[Winemaking.] Vinodelie. [A book]

Okhremenko, N. Ts.; Bur'yan, N. I.; Valuiko, G. G. Datunashvili, O. N.; Popov, K. S.; Razuvalo, N. I.; Tiurin, S. T.; Tiurina, L. V.

175pp. (1969) [Ru] Moscow, USSR: Vysshaya shkola Price 40 k

The book is designed primarily for the wine industry, but can also be used as a textbook for technical schools. Subjects covered include basic data on microbiology in the wine industry; yeasts and moulds and their microscopic investigation; wooden containers, large-vol. barrels and storage of packing materials; containers of reinforced concrete, metal or plastics; wine types- technology and classification of processing methods; treatment of wine during storage in barrels; control of wine processing in large fermentation vessels; diseases and defects of wine; microbiological control in the wine industry; and utilization of wastes from wine production. STI

503

[Planning in wineries.] Planirovanie na predpriyatiakh vinodel'cheskoi promyshlennosti. [A book] Tartakovskii, F. M.

316pp. 2nd edition (1970) [64 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 1.09 rouble

This handbook, intended for technologists and economists in the wine industry, consists of the following chapters: Fundamentals of industrial planning and special characteristics of wine industry planning (pp. 7-23); Increasing the economic efficiency of production (pp. 23-53); Plan of technical and economic indices (standards) of winery work (pp. 53-95); Production plans for wineries (pp. 96-132); Planning and balancing supplies of materials (pp. 133-66); Planning labour and wages (pp. 167-213); Planning wine production costing (pp. 214-76); Sales planning (pp. 277-80); Planning returns and profits (281-84); Planning promotion and development funds (pp. 284-94); Planning capital structure (pp. 294-301); and Financial planning (pp. 302-11). SKK

504

[Equipment of bottling and ancillary lines for still wines.] Oborudovanie linii rozliva i otdelki tikhikh vin. [A book]

Zaichik, Ts. R.

156pp. (1969) [6 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 0.34 rouble

This book, intended for winery personnel, consists of the following chapters: Bottle preparation for washing (pp. 5-12); Bottle washing and sterilization (pp. 12-41); Wine bottling (pp. 41-70); Bottle closure (pp. 70-99); Bottle inspection and sorting (pp. 99-112); Wine

pasteurization (pp. 112-14); Sealing, labelling and packaging of bottles (pp. 114-41); Bottle counting (pp. 141-47); and Line servicing (pp. 147-49). An appendix lists safety and hygiene requirements in wineries. SKK

505

[Wine production.] *Vinarstvo*. [A book]
Lahol, L.; Minarik, E.; Navara, A.
426pp. (1970) [Sk] Bratislava, Czechoslovakia:
Priroda. Price Kcs 42.50

The book covers fundamentals of wine chemistry, microbiology and analysis based on modern findings in Czechoslovakia and abroad. It deals with chemical composition of wine musts, biochemistry of fermentation, wine stabilization, and problems of the ecology, physiology and microbiology of grapes. Most modern analytical methods used in viticulture and wine production are described. STI

506

[Basis of production of Soviet champagne and sparkling wines.] *Osnovy proizvodstva Sovetskogo shampanskogo i igristikh vin*. [A book]
Popov, K. S.
215pp. (1970) [Numerous ref. Ru] Moscow, USSR:
Izdatel'stvo Pishchevaya Promyshlennost'. Price
0.59 rouble

Problems of raw material supply, and the varieties of grape suitable for production of Soviet champagne and sparkling wines are discussed in brief. Processing methods are dealt with and experience gained with the production in vats and bottles is described. The book is recommended for specialists and research workers engaged in wine production. STI

507

[Wine - manufacture, treatment, analysis] *Der Wein - Bereitung, Behandlung, Untersuchung*. [A book]
Vogt, E.
248pp. (1968) [Numerous ref. De] Stuttgart, W. Germany: Eugen Ulmer. Price DM 24.00

This book gives detailed consideration to production, handling and analysis of wine, special reference being made to modern processing equipment. Chapters include: 'Cultivation of grapes' (pp. 13-23); 'Composition and types of grapes' (pp. 24-31); 'Grape juice' (pp. 31-40); 'Production of must' (pp. 40-49); 'Fermentation' (pp. 50-76); 'Adjustment of wine composition' (pp. 77-123); 'Improvement of must and wine' (pp. 123-39); 'Defects of wine' (pp. 139-63); 'Composition and evaluation of wine' (pp. 163-81); 'Types of wines' (pp. 181-99); 'Fruit and berry wines' (pp. 199-210); 'Processing of waste products' (pp. 210-15); and 'Analysis of must and wine' (pp. 215-43). 25 Tables give production data for vineyards, import and export figures, and composition of different wines. 59 illustrations and a list of

important books and journals are included. This book will be very useful for students and other people interested in wine. INe

508

[Equipment in the wine industry.] *Oborudovanie predpriyati vinodel'skoi promyshlennosti*. [A book]
Zaichik, Ts. R.
369 pp. (1968) [123 ref. Ru] Moscow, Pishchevaya promyshlennost'. Price 1 r. 1 k.

The basic types of machinery and equipment used in the wine ind. are described, together with the characteristics of the raw materials employed and their classification. Contents include: equipment in the winery; classification of machines and apparatus employed; metals, anti-corrosive and synthetic materials used in machinery and equipment; processing of grapes; presses and pumps; equipment for fermenting wort and pulp; containers used during processing; fillers; equipment for production of sparkling wines, brandy and fruit wines; and equipment for processing waste. The book is designed for the average skilled worker, for engineers and for technicians in the wine ind. STI

509

[Contemporary techniques in the wine industry.] *Nowoczesna technika w przemyśle winiarskim*. [A book]
Staron, M.
297pp. (1968) [Pl] Warsaw, Poland: WPL. Price 43 zł.

This book, designed primarily for engineers and technicians in the wine, fruit and vegetable and brewing and alcohol industries, can also be used as a university textbook for food technology studies. Contents include: design, construction and equipment of wineries; containers used in winemaking and methods of cleaning them; transport of wine; technology of wine stabilization; effect of new technological methods on the stabilization, mixing, fining, filtration, cooling, heating and clarification; biological methods of stabilization; bottling; bottle characteristics; bottle washing; storage of wine and auxiliary materials and role of the works lab. STI

510

Advances in food research. Supplement I. Phenolic substances in grapes and wine, and their significance. [A book]
Singleton, V. L.; Esau, P.
viii + 282pp. (1969) [Numerous ref. En] New York & London: Academic Press Inc. Price \$14.50 [Dept. of Viticulture and Enology, Univ., Davis, California, USA]

This book describes, evaluates, and draws new hypotheses from old and new literature on grape growing and wine processing. Emphasis is placed on the phenolic constituents of food products and

plants. The book will be of value to oenologists, brewers, viticulturists and scientists and technologists interested in phenols. The bibliography (pp. 209-61) cites >1200 ref. Subject and author indexes are included. Chapters are: 'Introduction' (pp. 1-6); 'Qualitative phenolic composition of grapes and wines' (pp. 7-60); 'Quantitative phenolic composition' (pp. 61-111); 'Viticultural and biosynthetic relationships' (pp. 134-206); and 'Research needs' (pp. 207-08). JA

511

[Technology of table wines.] Tekhnologiya stolovykh vin. [A book]
Valuiko, G. G.
304pp. (1969) [281 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 0.96 Rouble

This illustrated book, intended for engineers and technical workers in the wine industry, consists of a general introduction which includes a classification of wines (pp. 5-24) and the following chapters: The grape and wine quality (pp. 25-53); Technology of white table wines, and of champagne- and cognac-type products (pp. 54-176); Technology of red table wines (pp. 177-259); and Stabilization of table wines (pp. 260-90). SKK

512

[The wine dictionary: wines of the world.] Das Wein-Lexikon: Die Weine der Welt. [A book]
Schoonmaker, F.
277pp. (1969) [De] Frankfurt Fischer Bücherei GmbH

This handy little dictionary gives definitions, explanations and a wide range of both well- and little-known information on >2000 of the world's leading wines, and on winegrowing regions, wine terminology, and stages or techniques in

winemaking. A special section deals with the classification of French wines, and there are also lists of mean temp. in the major winegrowing areas during the critical 4 months, the types of wine to take with particular foods and vice versa, wine characterization and the main German wine districts. HBr

513

[New methods for the biochemical investigation of wine.] Novye metody biokhimicheskikh issledovaniy vina. [A book]
Avakyants, S. P.
68pp. (1968) [Ru] Moscow: CINTI-Pishcheprom Price 28 k.

Gel filtration, paper chromatography, chromatography on ion-exchange resins, polarography, optical analytical methods and chemical methods are described. STI

514

[Accounting in the wine industry.] Uchet i otchetnost' v vinodel'skoi promyshlennosti. [A book]
Ochichenko, I. I.
275pp. (1968) [Ru] Kishinev: Kartya moldovenjanske Price 1 r. 34 k.

515

The science of wine. [A book]
Austin, C.
216pp. (1968) [En] London: Univ. of London Press Ltd. Price 35s

This book, for the student of winemaking describes some relevant science topics under the headings: 'Yeasts' (pp. 1-59); 'Sugars' (pp. 60-85); 'Alcohols' (pp. 86-125); 'Acids' (pp. 126-51); 'Disorders' (pp. 152-72); 'The chemistry of wine' (pp. 173-214). JN

516

Wine. (Teach yourself books). [A book]
Don, R. S.
vi + 202pp. (1968) [En] London: English Univ. Press Ltd. Price 10s 6d

This text for a general readership contains chapters on: 'Vineyards, vines, vine growing and vintaging'; 'How still table wines are made'; 'From the cask to the bottle'; 'How champagne and other sparkling wines are made'; 'The making of Sherry'; 'The making of Port, Madeira and Marsala'; 'Teach yourself wine drinking'; 'On buying wine'; 'The wine cellar'; 'Choosing and serving wine'; 'A buyer's guide'. The appendix contains information on: liquid measures; bottle sizes and capacities; casks and their contents; pronunciation guide. JN

517

The technology of wine making. [A book]
Amerine, M. A.; Berg, H. W.; Cruess, W. V.
ix + 799pp. (1967) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co., Inc. Price \$28 [Univ., Davis, California, USA]

This revised 2nd edition has been enlarged to include advances in the areas of grape and wine composition, wine stability, yeasts and bacteria, and sparkling wines. All references have been brought up to date and many new ones added. The information is arranged under the following chapter headings: 'Wines and wine regions of the world' pp. 1-75; 'Composition of grapes' pp. 76-137; 'American wine types and their composition' pp. 138-50; 'The moulds and yeasts of grapes and wine' pp. 151-76; 'Chemistry of fermentation and composition of wines' pp. 177-244; 'Winery design, equipment, operation and sanitation' pp. 245-356; 'Red table wine production' pp. 357-79; 'Production of white table wine' pp. 380-90; 'Production of sherry' pp. 391-439; 'Port and other dessert wines' pp. 440-541; 'Sparkling wine

production' pp. 455-87; 'Wine making in Eastern United States' pp. 488-501; 'Vermouth and flavoured wines' pp. 502-22; 'Fruit wines' pp. 523-47; 'Non-bacterial spoilage' pp. 548-76; 'Bacterial spoilage' pp. 577-98; 'Brandy production' pp. 599-643; 'Winery by-products' pp. 644-76; 'Evaluation of wines and brandies' pp. 677-730; 'Legal restrictions of wine making' pp. 731-65. VJG

518

[Distillery technology.] Tekhnologiya spirta.

[Book]

Khalaim, A. F.

192pp. (1972) [13 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'

This book, designed as a textbook for training of distillery workers, contains the following chapters: Raw materials and ancillary materials for alcohol production; Preparation of the raw material for processing; Starch and saccharifying substances; Thermal processing of the raw material; Yeasts and bacteria; Fermentation; Distillation and rectification of the alcohol; Calculation of strength; Yield of alcohol; Production of baker's yeast; Utilization of grain and potato mash; Utilization of molasses mash; and Utilization of CO₂. HBr

519

[Technical progress in distillation and yeast industries.] Postep techniczny w przemyśle spirytusowym i drożdżowym. [Book]

Labendzinski, S.; Herman, A.; Skiba, M.;

Skibniewski, C.; Werner, A.; Murawski, T.

218pp. (1971) [34 ref. Pl] Warsaw, Poland, Wydawnictwa Naukowo-techniczne. Price 32 zł

The book discusses progress in the field of automation of production processes. It includes the following chapters: Technological operations in alcohol manufacture - continuous alcohol fermentation, use of CO₂ in molasses production; Use of molasses as fodder; Manufacture of spirits; Bottling of spirits; Technological operations in yeast production; Automation in distilleries and yeast manufacturing plants - control and measuring apparatus, automatic control of some technological processes. STI

520

[Maintenance of equipment in distilleries.] Remont oborudovaniya spirtovykh zavodov. [Book]

Rabinovich, B. D.

119pp. (1972) [16 ref. Ru] Moscow, USSR, Pishchevaya Promyshlennost'. Price 0.41 r

Maintenance operations are discussed in detail. The main chapters deal with: system of maintenance of equipment; wear of spare parts and equipment; maintenance of conveying systems; maintenance of pipelines and fittings; maintenance of technological equipment; maintenance of heat and power

equipment; maintenance and repairs of spare parts; and use of anticorrosive varnishes. STI

521

[Handbook for workers in the alcohol industry.]

Spravochnik rabotnika spirtovoi promyshlennosti.

[Book]

Rudnitskii, P. V.

377pp. (1972) [143 ref. Ru] Kiev, USSR,

Izdatel'stvo Tekh. Price 1.80 r

This book contains practical recommendations regarding technology of alcohol manufacture from molasses, manufacture of baker's and fodder yeasts, alcohol distillation, and utilization of waste products. The main chapters of the book deal with: Survey of the alcohol industry in the USSR (pp. 5-12); Alcohol manufacture from molasses (pp. 12-40); Equipment used for molasses fermentation (pp. 40-57); Automatic control of the main production processes (pp. 57-87); Alcohol distillation and rectification (pp. 87-116); Baker's yeast production technology (pp. 116-133); Technology of fodder yeast production in alcohol manufacturing plants (pp. 133-146); Complex use of molasses stillages (pp. 146-163); Utilization of carbonic acid (pp. 163-198); Government standards governing finished products (pp. 198-205); Control of molasses alcohol production (pp. 205-222); Thermal energy management (pp. 222-253); Water management in the alcohol industry (pp. 253-271); Economic aspects of alcohol production (pp. 271-286); Legal aspects (pp. 286-296); Labour safety aspects (pp. 296-310); and Control and economic problems in alcohol production (pp. 311-373). STI

522

[Technology of alcohol and liquor manufacture.]

Tekhnologiya spirtovogo i likerovodochnogo proizvodstva. [Book]

Fertman, G. I.; Shoikhet, M. I.

280pp. (1973) [many ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya promyshlennost'. Price 0.76 r

This book contains the following chapters: Ethyl alcohol, its properties and production (pp. 6-11); Raw materials for alcohol and liquor manufacture (pp. 11-38); Manufacture of alcohol from molasses (pp. 38-72); Treatment of potatoes, beets and grain for alcohol manufacture (pp. 72-81); Methods of saccharification in alcohol production (pp. 81-106); Alcohol manufacture from potatoes and grain (pp. 106-153); Alcohol manufacture from sugarbeet (pp. 153-158); Alcoholic distillation and rectification (pp. 158-189); Complete use of raw materials and exploitation of wastes in alcohol manufacture (pp. 189-215); Losses and ways of reducing them (pp. 215-219); Principles of vodka and liquor production (pp. 219-222); Vodka manufacturing process (pp. 222-228); Liquor

processing (pp. 238-262); Bottling and labelling (pp. 262-270); Use of wastes in the liquor production process (pp. 270-272); and Losses and their reduction (pp. 273-275). STI

523

[Brandy technology.] Tekhnologiya konyaka. [A book]

Maltabar, V. M.; Fertman, G. I.

342pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya promyshlennost'. Price 1.05 roubles

Brandy production from the initial alcohol to the finished product, and including waste disposal, is dealt with. The book contains the following chapters: Grape varieties suitable for brandy production (pp. 9-20); Wine for brandy production (pp. 21-33); Theoretical problems of brandy production (pp. 33-65); Technological processes in brandy production (pp. 65-89); Distillery equipment (pp. 90-113); Distillation of wine and raw alcohol (pp. 113-150); Theoretical problems of brandy maturation (pp. 150-202); Brandy production (pp. 202-254); Equipment for bottling of brandy (pp. 254-296); and waste utilization and disposal (pp. 296-337). STI

524

[Microbial amylases in the production of alcohol.]

Mikrobielle Amylasen bei der Alkoholgewinnung.

[A book]

Pieper, H. J.

56pp. (1970) [50 ref. De] Stuttgart, W.

Germany: Verlag Eugen Ulmer

This book is based on experiments carried out in the experimental distillery of the University of Hohenheim on the use of microbial enzyme preparations for processing wheat and maize, with particular reference to comparison of green and cured malts. The subject is divided into the following chapters: Introduction (pp. 1-4); Raw materials (pp. 5-6); Enzymic dextrinizing and saccharification agents (pp. 6-10); Technology of alcohol production with microbial amylases (pp. 11-27); Experiments into, results of and discussion on special problems of the mashing and fermentation process with reference to application of microbial amylases (pp. 28-45); Analytical methods (pp. 46-51); and Resume (pp. 52-54). HBr

525

[Principles of brandy technology.] Osnovy tekhnologii konyaka. [A book]

Sirbiladze, A. L.

109pp. (1971) [26 ref. Ru] Moscow, USSR: izdatel'stvo Pishchevaya Promyshlennost'. Price 0.16 rouble

A description is given of brandy manufacturing methods and the utilization of brandy production wastes. The main chapters deal with: Vine types

used for brandy production; Type of wine and brandy quality; Distillation; Brandy maturation; Brandy manufacture; Methods of chemical and sensory analysis; Methods of ancillary materials control; and Waste utilization. STI

526

[Preparation of submerged fungal cultures and their use in the alcohol industry.] Proizvodstvo i primeneniye glubinnoy kul'tury plesneykh gribov v spirtovoy promyshlennosti. [A book]

Ustinnikov, B. A.; Yarovenko, V. L.;

Pykhova, S. V.

100 pp. (1969) [44 ref. Ru] Moscow, USSR:

Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 0.31 Rouble

This illustrated monograph, intended for personnel concerned with replacing malt by fungal amylase in the alcohol industry, deals in detail with technology and equipment for submerged culturing of fungi (*Aspergillus niger*, *Asp. usamii*, or *Asp. batatae*) and their use in the alcohol industry. SKK

527

[Laboratory control of raw materials, auxiliary substances and products in the distilling industry. II.]

Laboratorni kontrola surovin, pomocnych latek a vyrobku v lihovarskem oboru. [A book]

Hauser, P.

298 pp. (1968) [Numerous ref. Cs] Prague: UVUPP - Stredisko technickyh informaci potravinarskeho prumyslu. Price 57,80 Kcs.

Part II contains a summary of analytical methods necessary for input, operational and output control of the principal products of the distilling industry. The publication is intended for workers in lab. of the Distilleries and Canning Plants. It deals with fodder yeast, spirit essences and other flavouring and aromatic substances, sugar colouring, food coal tar dyes, organic acids, chemical products, fusel oil, distiller's solubles, molasses, H_2SO_4 , HCl , dil. H_3PO_4 , ammonia liquor, $(NH_4)_2SO_4$, $(NH_4)_2HPO_4$, superphosphate, soda, formalin, $CaCl_2$, preserving matters, sevice water, defoaming oils, drinking water, grape wine, and includes several tables. STI

528

[Chemistry of brandy production.] Khimiya Kon'yachnogo proizvodstva. [A book]

Skupikhin, I. M.

284pp. (1968) [Numerous ref. Ru] Moscow: Izdatel'stvo "Pishchevaya Promyshlennost'"

This book intended for technical and scientific personnel concerned with brandy manufacture, contains 8 chapters dealing with chemical and chemico-physical processes occurring during the

distillation of wine, storage of brandy spirits in oak casks and enamelled tanks and treatment of brandy. Technological aspects of the use of enamelled tanks for storing brandy spirits are described, and different methods for accelerating the maturation of brandy and for analysing brandy spirits and brandy are outlined. The book is well referenced and contains a subject index. FL

FRUIT & VEG

529

[Storage and primary processing of vegetables and fruits: bibliography for 1966-1970.] *Khraneniya i pervichnaya pererabotka plodov i ovoshchei.* [A book]

Klosep, L. G.

140pp. (1971) [Ru] Moscow, USSR:

Tsentral'naya Nauchnaya Sel'skhozyaistvennaya Biblioteka. Price 0.45 rouble

The 786 ref. are made up of 489 from Soviet sources, covering the yr 1966-1970, and 297 from non-Soviet sources, covering the yr 1968-1969. The book is divided into the following sections: General problems (pp. 3-12); Economics (pp. 12-22); Storage methods and conditions (e.g. cold storage, controlled atm., use of plastics films, aeration, ionizing irradiation, control of ripening) (pp. 22-61); Biochemical and physiological changes during storage (pp. 61-77); Storage diseases and pests and methods of combatting them (pp. 78-93); Shelf life and quality (pp. 93-109); Warehouses and their equipment (pp. 109-123); and Processing (pp. 123-140). HB

530

Fruit and vegetables. [A book]

Duckworth, R. B.

xxiv + 306 pp. (1966) [En] London: Pergamon Press, 1966, Price 40s. [Univ. of Strathclyde, Glasgow, Scotland]

This book is intended primarily as a general text on fruit and vegetables for students of food science and related subjects. It is divided into 2 parts, the 1st deals with the chemical constitution, structure, physiology and microbiology of fruit and vegetables. The 2nd part, concerning the utilization of fruit and vegetables, contains chapters on patterns of production and trade, contributions to human nutrition, problems of transport, storage and marketing, quality and processing. 2 appendices: tables showing the composition of fruit and vegetables and statistics of world production and trade are included. Suggestions for further reading and reference are given. JA

531

plodov i ovoshchei. [A book]

Metlitskii, L. V.

270pp. (1970) [Ru] Moscow, USSR: Ekonomika. Price 1.68 roubles

532

[Vitamins and mineral components of fruit and berries.] *Vitaminy i mineral'nye veshchestva plodov i yagod.* [A book]

Korobkina, Z. V.

150pp. (1969) [120 ref. Ru] Moscow, USSR: Ekonomika. Price 0.48 rouble

Methods used and results of studies on the vitamin and mineral contents of various fruits are discussed. Characteristics of the main vitamins occurring in various fruits and berries are given and the vitamin value of individual fruits discussed. Mineral contents of individual fruits are considered. The last chapter deals with trace

533

[Machines and technical equipment for processing fruit and vegetables.] *Aparatura i urzadzenia techniczne w przetworstwie owocowo-warzywnym.* [A book]

Franczak, S.

155pp. (1968) [Pl] Warsaw: PWSZ Price 7 zl.

Machines and equipment used in fruit and vegetable processing are considered. Topics dealt with in this book include: machines for pretreatment of fruit and vegetables; peeling and cleaning equipment; measuring instruments; machines for cutting up fruit and vegetables, for pressing juices and filtering them; fillers; machines for sealing packs; equipment for thermal processing of fruit and vegetables; cooling equipment; evaporators; pasteurizers and autoclaves. The principles of cooling, refrigeration and freezing systems; instruments for regulation and control; production lines for tomato puree, for canning beans and peas, and their maintenance, are also dealt with. STI

534

[Raw materials and auxiliary materials in processing of fruits and vegetables.] *Sorowce i materialy pomocnicze w przetworstwie owocowo-warzywnym.* [A book]

Pytlak, Z.

261 pp. (1968) [Pl] Warsaw: Panstwowe wydawnictwa szkolnictwa zawodowego. Price 15,- zl.

This book contains the following sections: The basic and auxiliary materials, their properties, their classification, their use and storage. Gardening in Poland and abroad. The present situation and future development. Forest fruits as a source of raw materials. Cultivated and wild plants as a source of raw materials for the food industry. The organization of purchase. Transport. Varieties of fruit. Varieties of vegetables. Mushrooms, honey, meat and meat

products. Fats and milk as raw materials for the production of fruit and vegetable foods. Auxiliary materials: sugar, syrup, salt, yeast, alcohol, colouring matters, spices, aromas, and antibiotics. Packaging materials: ceramics, glass, metal, wood, paper. Chemicals used in the processing of fruits and vegetables. STI

535

Preservation of fruits and vegetables. [A book]

Lal, G.; Siddappa, G. S.; Tandon, G. L.
370pp. (1967) [Numerous ref. En] New Delhi: Indian Council of Agric. Res. Price Rs. 11.50 [Central Food Technological Res. Inst., Mysore, India]

Information derived from intensive studies and research in India on various aspects of fruit and vegetable preservation has been gathered together by senior officers of the Central Food Technological Research Institute to produce this book. It aims to give practical guidance to both the small and large scale producer. The following chapters are included: 'Canning and bottling fruits and vegetables' (pp. 15-18); 'Commercial canning' (pp. 19-37); 'Containers' (pp. 38-50); 'Syrups and brines for canning' (pp. 51-59); 'Canning fruits' (pp. 60-70); 'Canning vegetables'

(pp. 71-75); 'Spoilage in canned foods' (pp. 76-83); 'Fruit juices, squashes and cordials' (pp. 84-114); 'Fruit beverages' (pp. 115-34); 'Fermented beverages' (pp. 135-38); 'Jams, jellies and marmalades' (pp. 139-71); 'Preserves, candies and crystallized fruits' (pp. 172-84); 'Tomato products' (pp. 185-201); 'Chutneys, sauces and pickles' (pp. 202-29); 'Vinegar' (pp. 230-40); 'Drying of fruits and vegetables' (pp. 241-56); 'By-products' (pp. 257-64); 'Manufacture of pectin' (pp. 265-72); 'Water for a cannery' (pp. 273-80); 'Food colours' (pp. 281-87); 'Vitamins' (pp. 288-91); 'Limits for use of preservatives' (pp. 292-94). VJG

536

[Handbook of preservation techniques for the fruit and vegetable processing industries. I.]

Konserventechnisches Handbuch der Obst- und Gemüseverwertungsindustrie. I. [A book]
Nehring, P.; Krause, H.
15th edition, 884pp. (1969) [Numerous ref. De] Brunswick, W. Germany: Verlag Günter Hempel Price DM 158 (2 vol.) [Inst. für Konserventechnologie, Brunswick, W. Germany]

The 2 vol. making up this authoritative and up-to-date new edition of the handbook give a comprehensive description of the processes, techniques and ancillary aspects of fruit and vegetable processing. Vol. I contains 20 chapters, as follows: microbiological aspects of industrial fruit and vegetable processing; enzymatic effects in fruit and vegetable processing; non-enzymatic discoloration of fruit and vegetables; nutritive value of processed fruit and vegetables; raw materials; storage and transport of fruit and vegetables; canning and bottling; deep-frozen fruit and vegetables;

drying of vegetables (including edible fungi) and fruit; acidified preserves, salted vegetables and vegetable juices; jam, marmalade and intermediary products; fruit jellies, concentrated apple and/or pear juices and pressed, concentrated sugar beet juice; candied fruits; fruit juices and concentrates; fruit and vegetable wines; fruit juices from 1st pressing and fruit syrups; packaging materials; additives; water; and plant hygiene. Weight and temp. conversion tables and an index are appended. Each chapter has a selected bibliography. HBr

537

[Handbook of preservation techniques for the fruit and vegetable processing industries. II.]

Konserventechnisches Handbuch der Obst- und Gemüseverwertungsindustrie. II. [A book]
Nehring, P.; Krause, H.
15th edition, 699pp. (1969) [De] Brunswick, W. Germany: Verlag Günter Hempel Price DM 158 (2 vol.)

The 13 chapters making up Vol. II are as follows: general food laws; special food laws for processed fruit and vegetable products; raw materials, regulations and trade requirements; trade regulations and requirements for processed fruit and vegetable products; labour laws; other regulations and standards (weight, price); book-keeping; costing, pricing, comparison; statistical reviews; organization; miscellaneous (trade unions, accident prevention, first aid); customs tariffs; and a De-En-Fr glossary of major terms. A detailed index to the 2 vol. is appended. The vol. are well produced, cloth-bound, measure 23.5 × 15.5 cm, and include >300 illustrations. HBr

538

[Simple processing and preservation of vegetables and fruits.] Prosteishaya pererabotkai konservirovanie plodov i ovoshchei. [A book]

Osipov, A. M.; Belousov, D. P.
168pp. (1968) [Ru] Moscow: Izdatel'stvo 'Ekonomika'. Price 31 Kopecks

This booklet, intended for personnel of consumer co-operatives concerned with agricultural products and for domestic users, gives simple recipes for blanching, salting, pickling, marinading, souring, drying or bottling of vegetables, fungi and fruits and for making fruit salads, jams, purees, preserves and juices. SKK

539

[Processing of fruits and vegetables.] Technologia przetworstwa owocowo-warzywnego. [A book]

Kaleciak, J.
386 pp. (1968) [Pl] Warsaw: Panstwowe wydawnictwa szkolnictwa zawodowego. Price 25,- Zl.

Main technologies are described for the processing of fruits and vegetables, new operating methods, machines, equipment and storage.

Methods of analytical control of individual operations and the main principles of hygiene and safety during working are discussed. Detailed sections include the importance of fruit, vegetable and mushroom products in nutrition. Characteristics of tinning. Production principles. Principles for the analytical control of products and prefabricated products. General characteristics of the manufacture of fruit and vegetable products for short-time storage. The manufacture of semi-prepared and ready-to-use products with a high content of sugar. The manufacture of tomato paste, conc. juices and milk and fruit cocktails. The manufacture of fruit and grape wine and mead. The production of frozen fruit, vegetables and mushrooms. Sterilisation by heat. The production of pickles and fermented products (white cabbage, cucumbers, mushrooms). The utilisation of wastes. New products and treatments in the fruit and vegetable industry. STI

540

[New foreign methods of fruit and vegetable preservation.] *Novye metody khraneniya plodov i ovoshchei za rubezhom.* [A book] Dzhabarov, A. F. 136pp. (1969) [38 ref. Ru] Moscow, USSR: Izdatel'stvo 'Ekonomika'. Price 0.35 rouble

This book, designed for technicians in the fruit and vegetable preservation trade and for students at technical colleges, describes advances made in non-Soviet countries in fruit and vegetable preservation. It is divided into 3 chapters covering use of irradiation (pp. 3-58), air circulation (pp. 59-90) and controlled atmosphere (pp. 91-132). A 2pp. bibliography (covering literature up to 1968) is included. HBr

541

[Fruit and vegetables for the preservation industry.] *Plodoovoshchnoe syr'ye dl'a konservnoi promyshlennosti.* [Book] Metlitskii, L. V.

355pp. (1971) [107 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya promyshlennost'. Price 2.94 roubles

This book contains a collection of research papers dealing with the chemical and technological properties of various varieties of potatoes, and types of fruit and vegetables. The studies were carried out at many Soviet Research Institutes and Research Stations. The results will serve as a basis for the choice of the most suitable varieties for preservation purposes in the form of natural fruit and vegetables or for the manufacture of various fruit and vegetable food products. STI

542

Canned vegetables and fruits. [A book] Morton Research Corp. 77pp. (1970) [En] New York, USA: Author Price \$30.00

Statistics on production, financial and economic

trends, production % changes between 1950 and 1967, consumer expenditure in relation to family characteristics, advertising trends, sales trends, sales and profits trends in supermarkets, US exports and imports, etc. for a wide range of canned vegetables and fruits are given. Detailed production statistics (1954, 1958, 1963 and 1967) are given for canned fruit and vegetables, mushrooms, fruit juices, nectars and concentrates, vegetable juices, catsup, tomato juice and sauces, jams, jellies and preserves, peaches and peas. AL

543

[Technology of fruit and vegetable canning.] *Tekhnologiya konservirovaniya plodov i ovoshchei.* [A book] Fan-Yung, A. F.; Flaumenbaum, B. L.; Izotov, I. K. 3rd edition 605pp. (1969) [202 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.26 roubles

This textbook, intended for use at universities and colleges with food departments (and compiled in collaboration with them), contains the following chapters: Raw materials of vegetable origin (pp. 13-84); Natural vegetable preserves (pp. 86-176); Prepared vegetable preserves; preserved meals; dietetic vegetable preserves (pp. 177-235); Semi-manufactured conc. tomato products, tomato sauces (pp. 236-89); Preserved vegetable juices (pp. 290-307); Preserved fruit compotes (pp. 308-47); Fruit and berry juices (pp. 348-454); Fruit and berry puree, pastes and sauces fruit preserves for infant feeding (pp. 455-73); Semi-manufactured, sulphite-treated preserves; preserving with the aid of sodium benzoate and sorbic acid (pp. 474-93); Gels, jams, marmalade, pulps, pastilles, candied fruit (pp. 494-541); Marinated fruits and vegetables (pp. 542-53); and Soured (salt, urea) fruits and vegetables (pp. 534-83). An 8-pp. subject index is appended. HBr

544

[Utilization of natural cold for the storage of fruit and vegetables.] *Ispolzovanie estestvennogo kholoda pri khranении plodov i ovoshchei.* [A book] Bruev, S. N.

108pp. (1968) [Ru] Moscow: Ekonomika. Price 28 k.

This book is intended for workers in fruit and vegetable stores, agronomists and industrial executives. An account is given of the experimental storage of fruit and vegetables using natural cold. Other sections describe: The generation of heat and moisture during storage, heat insulation of the store-rooms, and principles of natural and forced ventilation; Storage of vegetables under conditions of active ventilation, by means of air circulation; Properties of stored cabbage; Effect of the time of harvesting and period of storage on cabbage in stores with natural air exchange; Storage of cabbage in crates and stores with ventilation grills; Results and experience with carrot storage; Below fp and long-term storage of apples; Storage in soil-covered holes, pits, trenches and stores with ventilation grills, and

with the possibility of adapting the temp. to freezing conditions; Effect of temp. on the quality of apples held in cold storage. STI

545

[Fruit and vegetable storage.] Skladovanie ovocia a zeleniny. [A book]

Kopec, K.

347pp. (1969) [Numerous ref. Sk] Bratislava, Czechoslovakia: Priroda. Price 28.- Kcs.

The introduction describes the importance of fruit and vegetables for human nutrition. Further problems dealt with are: chemical composition of fruit and vegetables; changes undergone during harvest; diseases affecting fruit and vegetables; how to prolong keeping quality of fruit and vegetables; most favourable storage conditions; packaging; application of irradiation in fruit and vegetable stores; application of chemical materials; application of antibiotics; warehouse technology; storing fruit and vegetables in households, cold stores; temp. measurement; storage of individual types of fruit and vegetables. The book has a detailed subject index. STI

546

Waste disposal control in the fruit and vegetable industry.

Jones, H. R.

Pollution Technology Review, Noyes Data

Corporation 1, x+261pp. ISBN 0 8155 0466 7 (1973) [many ref. En] Park Ridge, New Jersey, USA, Noyes Data Corp.

This book, largely based on US government reports and surveys, gives methods by which food processors may minimize polluting wastes. The subject is covered under the chapter headings: Introduction (pp. 1-20); Structure of the industry (pp. 21-38); Harvest and delivery - the supply to the industry (pp. 39-45); Demand structure for products of the industry (pp. 46-49); Food processing operations - water use in the industry (pp. 50-63); Waste generation and characteristics (pp. 64-83); Waste reduction (pp. 84-140); Waste treatment processes (pp. 141-210); Water pollution abatement costs (pp. 211-222); Impact of pollution control on industry (pp. 223-236); Future trends (pp. 237-238). A 1-pp. patent index is provided. JN

547

The biochemistry of fruits and their products. Vol 1 [A book]

Hulme, A. C. (Editor)

xviii + 620pp. SBN 12 361201 2 (1970) [Numerous ref. En] London, UK: Academic Press. Price £10.00 [Food Res. Inst., Norwich, Norfolk, UK]

This book gives details of the principal constituents of fruits, their chemistry and specific role in fruit metabolism. It is divided

into 4 parts: Constituents of fruit; Growth and pre-harvest factors; Biochemistry of maturation and ripening; and Physiological disorders of fruits. The following chapters are included: Sugars, by G. C. Whiting (pp. 1-31, 141 ref.); Hexosans, pentosans and gums, by F. A. Isherwood (pp. 33-52, 35 ref.); Pectic substances and other uronides, by W. Pilnik & A. G. J. Voragen (pp. 53-87, numerous ref.); Organic acids, by R. Ulrich (pp. 89-118, 128 ref.); Amino acids, by L. F. Burroughs (pp. 119-46, 100 ref.); Proteins, by E. Hansen (pp. 147-58, 36 ref.); Protein patterns in fruit, by R. L. Clements (pp. 159-77, 13 ref.); Enzymes, by D. R. Dilley (pp. 179-207, 119 ref.); Lipids, by P. Lazliak (pp. 209-38, 78 ref.); Volatile compounds, the aroma of fruits, by H. E. Nursten (pp. 239-68, 138 ref.); Fruit phenolics, by J. Van Buren (pp. 269-304, 182 ref.); Carotenoids and triterpenoids by T. W. Goodwin & L. J. Goad (pp. 305-68, numerous ref.); Vitamins in fruits, by L. W. Mapson (pp. 369-84, 41 ref.); The physiology and nutrition of developing fruits, by E. G. Bollard (pp. 387-425, numerous ref.); Hormonal factors in growth and development, by J. P. Nitsch (pp. 427-72, numerous ref.); [continued in following abstr.] VJG

548

The biochemistry of fruits and their products.

Volume 1. [A book]

Hulme, A. C. (Editor)

xviii + 620pp. SBN 12 361201 2 (1970) [Numerous ref. En]

[Continued from preceding abstr.]

The ethylene factor, by W. B. McGlasson (pp. 475-519, numerous ref.); The climacteric and ripening of fruits, by M. J. C. Rhodes (pp. 521-33, 68 ref.); Physiological disorders of fruit after harvesting, by B. G. Wilkinson (pp. 537-54, 57 ref.); Apple scald, by D. F. Meigh (pp. 556-69, 66 ref.). VJG

549

The biochemistry of fruits and their products.

Vol. 2. [A book]

Hulme, A. C. (Editor)

xvi + 788pp. SBN 12 361202 0 (1971) [Numerous ref. En] London, UK: Academic Press Inc. (London) Ltd. Price £12.00 (\$35.00 in USA) [Agric. Res. Council, Food Res. Inst., Norwich, UK]

This book is divided into 2 sections each containing several chapters. The sections are: Biochemistry and physiology of commercially important fruits (pp. 1-482) and The biochemistry of fruit processing (pp. 483-725). Individual chapters are: The avocado pear, by J. B. Biale & R. E. Young (pp. 1-63, 126 ref.); The banana, by J. K. Palmer (pp. 65-105, 128 ref.); Citrus fruits, by S. V. Ting & J. A. Attaway (pp. 107-169, numerous ref.); The grape, by E. Peynaud & P. Ribereau-Gayon (pp. 171-205, 61 ref.); Melons, by H. K. Pratt (pp. 207-232, 129 ref.); The mango, by A. C. Hulme (pp. 233-254, 49 ref.); The olive, by M. J. Fernandez Diez (pp. 255-279, 95 ref.); The persimmon, by S. Ito (pp. 281-301, 38 ref.); The pineapple: general, by G. G. Dull (pp. 303-324, 43 ref.); The

pineapple: flavour, by R. M. Silverstein (pp. 325-331, 26 ref.); Pome fruits, by A. C. Hulme & M. J. C. Rhodes (pp. 333-373, 164 ref.); Soft fruits, by A. Green (pp. 375-410, 120 ref.); Stone fruits, by R. J. Romani & W. G. Jennings (pp. 411-436, numerous ref.); The tomato, by G. E. Hobson & J. N. Davies (pp. 437-482, numerous ref.); General introduction, by M. Olliver (pp. 485-506, 29 ref.) [continued in following abstr.]

550

The biochemistry of fruits and their products. Vol. 2. [A book]

Hulme, A. C. (Editor)
xvi + 788pp. SBN 12 361202 0 (1971) [Numerous ref. En]

[Continued from preceding abstr.] Canned fruits other than citrus, by J. B. Adams & H. A. W. Blundstone (pp. 507-541, 152 ref.); Canned citrus products, by H. A. W. Blundstone, J. S. Woodman & J. B. Adams (pp. 543-572, 127 ref.); Fruit juices, by A. Pollard & C. F. Timberlake (pp. 573-621, numerous ref.); Dehydrated fruit, by D. M. McBean, M. A. Joslyn & F. S. Nury (pp. 623-652, 142 ref.); Freezing preservation, by B. J. Finkle (pp. 653-686, 132 ref.); Effects of radiation treatments, by I. D. Clarke (pp. 687-705, 78 ref.); Pigment degeneration during processing and storage, by C. O. Chichester & R. McFeeters (pp. 707-719, 101 ref.); and Quality, by G. G. Dull & A. C. Hulme (pp. 721-725). Author and subject indices are included [See FSTA (1971) 3 6J782 and 6J783]. JA

551

[Storage of fruit in controlled atmosphere.]

Khranenie plodov v reguliruemoi gazovoi srede.

[Book]

Metlitskii, L. V.; Sal'kova, E. G.; Volkind, I. L.; Bondarev, V. I.; Yanyuk, V. Ya.

184pp. (1972) [39 ref. Ru] Moscow, USSR, Izdatel'stvo "Ekonomika". Price 0.46 rouble

552

[Storage of fruit in a controlled atmosphere.]

Khranenie plodov v reguliremoi atmosfere. [Book]

Kolesnik, A. A.; Fedorov, M. A.; Osenova, E. Kh. 143 pp. (1973) [34 ref. Ru] Moscow, USSR:

Izdatel'stvo Kolos. Price 0.23 r

This book deals with the principles of controlled atmosphere of fruit and presents experimental data on the use of foil containers and fruit storage in hermetically sealed chambers. The advantages of controlled atmosphere storage of fruit are discussed. The main chapters deal with: Nutritional value and properties of stored fruit (pp. 3-34); Storage of fruit in a gas environment (pp. 34-39); Storage of fruit in foil containers equipped with gas permeable windows (pp. 39-102); and Fruit storage in cold rooms with a controlled gas atmosphere.

STI

553

[Picking and industrial processing of fruit and berries.] Sbor i tovarnaya obrabotka plodov i yagod. [A book]

Busarov, N. A.

248pp. (1970) [29 ref. Ru] Moscow, USSR: Izdatel'stvo Kolos. Price 0.48 rouble

This book, intended for administrative and technical personnel of fruit farms and processing establishments and for agriculture and technology students, consists of the following chapters: Harvesting preparations in orchards (pp. 6-15); Picking of fruit and berries (pp. 16-53); Packaging and packaging materials (pp. 54-71); Quality requirements for fruit and berries (pp. 72-87); Industrial processing of fruit and berries (pp. 88-132); Organization of packing plants (pp. 133-47); Fruit transport (pp. 148-67); Mechanization of harvesting and processing of fruit and berries (pp. 168-203); Standardization of labour, accounting and wages (pp. 204-27); and Sale and state purchases (pp. 228-38). SKK

554

[Wild fruits and berries.] Dikorastushchie plody i yagodi. [A book]

Rybitskii, N. A.; Gavrilov, I. S.

246pp. (1969) [38 ref. Ru] Leningrad, USSR: Fontanka 59 Price 0.43 Rouble

An illustrated description is given of 63 different wild fruits found in the Soviet Union, and methods of producing juices and various other products (e.g. jam, compote, fruit beverages, preserves) on a domestic scale are outlined. A 5-pp. index and tables giving the chemical composition and vitamin contents of the major wild fruits are appended. HBr

555

Tree fruit production. [A book]

Teskey, B. J. E.; Shoemaker, J. S.

2nd edition viii + 336pp. ISBN 0 87055 112 4 (1972) [Numerous ref. En] Westport,

Connecticut, USA: AVI Publishing Co. Inc. Price \$15.00 (US) \$16.00 (Foreign) [Agric. Coll., Univ. of Guelph, Ontario, Canada]

This revised and updated 2nd edition of the book, first published in 1959, covers the culture and handling of deciduous tree fruits grown commercially in N. America. It should prove useful as a text and reference book for students, teachers and others who require information on tree fruit production. Recent developments in horticultural science and orchard practices have been included in this new edition. >800 references are cited and the text is illustrated with 96 photographs and drawings. Chapters are: Apples (pp. 1-104, 138 ref.); Pears (pp. 105-133, 71 ref.); Dwarfed apples and pears (pp. 134-148, 31 ref.); Peaches (pp. 149-237, 174 ref.); Cherries (pp. 138-293, 92 ref.); Plums (pp. 294-314, 31 ref.); and Apricots and nectarines (pp. 315-326, 23 ref.). JA

556

Price performance of the Ontario fresh fruit marketing board. [A book]
Campbell, S.; Giblon, R.
38pp. (Undated) [En] Toronto: Farm Economics, Co-operatives and Statistics Branch of the Dept. of Agric. and Food.

557

[Candied fruit.] Owoce kandyzowane. [A book]
Gerlicz, K.

59pp. (1968) [Pl] Warsaw: WPLiS. Price 7 zl.

New methods of candied fruit production are described. Characteristics and utilization of regional fruit types are given. Heat treatment of raw materials used in the process and description of the main production methods are given. Coatings of candied fruit according to fruit kinds are dealt with. STI

558

Fruit. A review of production and trade relating to fresh, canned, frozen and dried fruit, fruit juices and wine. No. 17. [A book]

Commodities Division of the Commonwealth Secretariat.

vi+312pp. (1968) [En] London: Commonwealth Secretariat. Price 40s.

Statistics of world wide production and trade are given in numerous tables for apples, pears, plums, cherries, peaches, apricots, grapes, pineapples, oranges, grapefruit, lemons, bananas, canned fruit, fruit juices, frozen fruit, raisins and currants, dried tree fruits, and wine. 5 appendices are: 'Fruit consumption levels'; 'Fruit utilization in UK, Australia, Canada, S. Africa, and USA'; 'Government measures affecting the import of fruit into the UK'; 'Fruit and wine in the EEC'; 'Import duties and trade regulations'. JN

559

[Storage of apples, soft fruit and grapes.]

Krhanenic yagod i vinograda. [A book]

Dzhangaliev, A. D.; Tsyu, A. L.

143pp. (1969) [32 ref. Ru] Alma-Ata, USSR:

Izdatel'stvo 'Kainar'. Price 0,23 rouble

This book covers the fruits most widely cultivated in Kazakhstan, and is designed primarily for persons engaged in horticulture and public feeding and for students. Chapters are: Chemical composition of apples (pp. 3-22); Brief characterization of some regional varieties of apple (pp. 23-30); Harvesting the apple crop (pp. 30-41); Preparing apples for sale (pp. 41-63); Types of fruit store (pp. 63-73); Storage of soft fruits (strawberry, raspberry, gooseberry, blackcurrant, redcurrant (pp. 102-22); and Storage of grapes (pp. 123-39). A 2-pp. bibliography (covering the period 1949-66) is included. HBr

560

The biology of apple and pear storage. [Book]

Fidler, J. C.; Wilkinson, B. G.; Edney, K. L.;

Sharples, R. O.

xiii+235pp. SBN 85198 256 5 (1973) [many ref.

En] Farnham Royal, Slough, SL2 3BN, UK, Commonwealth Agricultural Bureaux Price £5 [East Malling Res. Sta., Maidstone, Kent, UK]

This book, Research Review No. 3 of the Commonwealth Bureau of Horticulture and Plantation Crops, East Malling, Maidstone, Kent, UK, is divided into 4 parts, each containing several chapters. Parts are: Conditions of storage, by J. C. Fidler (pp. 1-61, 170 ref.); Physiological disorders, by B. G. Wilkinson & J. C. Fidler (pp. 63-131, 280 ref.); Fungal disorders, by K. L. Edney (pp. 133-172, 134 ref.); and Orchard and climatic factors, by R. O. Sharples (pp. 173-225, 275 ref.). Part one contains chapters on basic physiology, optimum harvest date, refrigerated storage in air, controlled atmosphere storage and ripening after storage and lists storage conditions used for different apple and pear varieties in several countries. The part on physiological disorders covers injuries to fruit skin, injuries caused by incorrect concentrations of CO₂ and/or O₂, core flush, freezing injury, breakdown of fruit flesh, bitter pit and water core. JA

561

Refrigerated storage of apples and pears - a practical guide. [Book]

Fidler, J. C.; Mann, G.

vi+65pp. SBN 85198 152 6 (1972) [En]

Farnham Royal, Slough, SL2 3BN, UK,

Commonwealth Agricultural Bureaux Price £1.25

[Commonwealth Bureau of Horticulture and Plantation Crops, East Malling, Maidstone, Kent, UK]

This Horticultural Review No. 2 covers the subject under the headings: Basic physiology (pp. 2-4); Optimum time of harvest (pp. 4-7); Storage of apples (pp. 7-14); Storage and ripening of pears (pp. 14-17); Physiological disorders (pp. 18-30); Refrigerated store (pp. 30-35); Refrigerating plant (pp. 35-41); Controlled atmosphere stores (pp. 41-47); Externally generated atmospheres (pp. 47-49); Humidity (pp. 49-50); Instruments (pp. 51-54); Maintenance and operation (pp. 54-57); and Operation (pp. 58-60). The appendix lists recommended storage conditions for numerous varieties of apples and pears. JN

562

[New varieties of stone fruits developed in the USSR: sweet and sour cherries, plums, cherry

plums, apricots, peaches.] Novye sorta kostochkovykh kul'tur, vyvedennye v SSSR: vishnya, chereshnya, sliva, alycha, abrikos, persik. [A book]

Smirnov, V. F.

326pp. (1969) [En] Moscow, USSR: Izdatel'stvo 'Nauka'

563

[Pears.] Hrusky. [A book]
Cernik, V.; Bocek, O.; Vecera, L.
235pp. (1969) [43 ref. Cs] Prague, Czechoslovakia:
Statni Zemedelske Nakladatelstvi. Price 29 Kcs.

This book deals with the history, principles and methods of cultivating pears. Varieties suited to Bohemian soil and climatic conditions are described in detail. 64 varieties are illustrated and 123 pear varieties are described. The pear varieties are classified according to their commercial importance. STI

564

Marketing fresh strawberries in Ontario. [A book]
Blum, H.; Al Hashimi, M.
35 pp. (Undated) [En] Ottawa, Canada: Farm
Economics, Co-operatives and Statistics Branch,
Ontario Dept. of Agric. and Food

A distribution study of the 1967 Ontario strawberry crop is given. Detailed statistics, given in 33 tables, cover: Strawberry production; Channels of distribution; Retail distribution of fresh strawberries; Marketing aspects of fresh strawberries, including quality, preservation, storage, supply-and-demand, and future consumption. 10 334 900 qt of Ontario strawberries were marketed. An additional 939 300 qt were imported and 226 100 qt exported. Total spoilage was 939 500 qt. Sales were: 250 000 qt to processing industries; 10% directly to consumers; 50 % to retailers. Average per capita consumption was 1.27 qt. The potential market is estimated at an additional 1 200 000 qt. Specific recommendations for improved marketing are listed. JN

565

The chemical constituents of citrus fruits. [Book]
Kefford, J. F.; Chandler, B. V.
vii+246pp. (1970) [many ref. En] New York,
USA & London, UK, Academic Press. Price £5.35
[CSIRO, Ryde, New South Wales, Australia]

>1000 references published since the subject was reviewed in Volume 9 of *Advances in Food Research* (1959) are reviewed under the chapter headings: General composition of citrus fruits (pp. 5-22); Carbohydrates (pp. 23-30); Acids (pp. 31-37); Vitamins (pp. 39-42); Inorganic constituents (pp. 43-48); Nitrogen compounds (pp. 49-57); Enzymes (pp. 59-66); Pigments (pp. 67-79); Lipids (pp. 81-84); Volatile flavouring constituents (pp. 85-103); Simple polyphenolic compounds (pp. 105-111); Flavonoids (pp. 113-148); Triterpenoids and derivatives (pp. 149-164); and Research needs (pp. 165-167). A 12pp. author index and a 22pp. subject index are included. JN

566

Industrial processing of citrus fruit.
Berk, Z. (United Nations Industrial Development
Organization)
Food Industry Studies ID/SER.I/2 45 pp. (1969) [41

ref. En] [Technion-Israel Inst. of Technology,
Haifa, Israel]

This monograph is intended to provide reliable, practical information to food-processing industries in developing countries. The subject is covered under the headings: 'Economic background' (pp. 1-3); 'Production trends' (pp. 4-6); 'Raw materials' (pp. 7-9); 'Receiving operations' (pp. 10-13); 'Extraction of juice' (pp. 14-16); 'Single-strength juice' (pp. 17-21); 'Citrus-juice concentrates' (pp. 22-28); 'Citrus-juice bases for soft drinks' (pp. 29-30); 'Canned citrus fruit' (pp. 31-33); 'Miscellaneous products and by-products' (including essential oils, pulp, processing of waste peel, candied products and dehydrated citrus juices) (pp. 34-36); 'Feasibility studies for 2 small citrus-processing plants' (pp. 37-42). JN

567

[Application of potash to pineapples, after inflorescence (preliminary notes).]

Tisseau, M. R.; Tisseau, R.

Fruits 26 (12) 823-827 (1971) [5 ref. Fr, en, de, es, ru]

A dose of 3 g of potassium sulphate was applied to pineapple plants at different stages in the development of the fruit. The results were inconclusive, but the potassium appeared to have a slightly beneficial effect on fruit quality in that it tended to increase the acidity of the fruit and decrease the amount of internal browning. MEG

568

Banana, plantain and abaca diseases. [A book]
Stover, R. H.

xii+316pp. SBN 85198 088 0 (1972) [Numerous
ref. En] Farnham Royal, UK: Commonwealth
Agricultural Bureaux. Price £5.50 [Vining C.
Dunlap Lab., Tropical Res. Dept., United Fruit
Co., La Lima, Honduras]

This new guide to the field and post-harvest diseases of bananas and allied crops includes the following chapters: Varieties and banana breeding in relation to disease (pp. 3-5); Cultivation and shipping practices in relation to disease (pp. 7-14); Nematode diseases (pp. 15-36, 53 ref.); Fungus diseases of the foliage (pp. 37-110, numerous ref.); Fungus diseases of preharvest fruit (pp. 111-139, 49 ref.); Fungus diseases of postharvest fruit (pp. 141-166, 71 ref.); Fungus diseases of root, corm and pseudostem (pp. 167-188, 72 ref.); Bacterial diseases (pp. 189-216, 41 ref.); Virus diseases (pp. 217-240, 58 ref.); Non-infectious diseases and abnormalities of uncertain cause (pp. 241-255, 26 ref.); Diseases from chemical injury (pp. 257-265, 7 ref.); Nutritional deficiencies (pp. 267-273, 32 ref.); Diseases due to adverse climate and weather (pp. 275-286, 36 ref.); Diseases due to adverse soil conditions (pp. 287-292, 16 ref.); Genetic abnormalities (pp. 293-296, 7 ref.); Restricting disease spread - quarantine measures and eradication (pp. 297-302, 6 ref.); Excluded diseases (pp. 303-304). 2 appendices are included:

Agricultural chemicals approved for use on bananas by United States regulatory agencies (common name, chemical name and tolerances in ppm); and List of pathogens of bananas, plantains and abaca. VJG

569

[Preservation of tomato paste in large containers under rotation.]

Tsukerman, V. I.; Rogachev, V. I.; Fromzel', O. G.; Pogrebenko, N. M.; Tsenkevich, V. I.; Evstigneev, G. M.; Kolodyazhnyi, G. F.

Konservnaya i Ovoshchesushil'naya Promyshlennost' 1971 (11) 11-13 (1971) [4 ref. Ru]

A device was tested in Volgograd cannery designed to find optimum rotation patterns for tomato paste containers during cooling; the test was carried out with a view to designing a new canning line. Tomato paste was filled into 100 l. metal barrels coated with epoxy resins and varnish, or into metal milk cans (38 l. content). Filling was carried out at high temp. The containers were filled up to 70-95% vol.; following hermetic sealing, they were fed into holders of the rotating device and cooled by spraying with water at 22°C. The container rotates along a vertical axis or in bottom-lid direction, or along an axis having a 45° angle with the container axis. Number of rotations was controlled to range between 8 and 60 rev/min. Under the given rotation patterns the time necessary for cooling the tomato paste from 80°C to the required 40°C was determined. Results are plotted in curves. Rotation along the axis having 0° angle to container vertical axis was abandoned due to slow rate of cooling. The other two methods are suitable for rapid cooling; however, the 45° angle pattern is a challenging problem for designers. Increasing the filling volume up to 95% of container space increased the cooling time. STI

570

[Manufacture of tomato concentrates and tomato juice.] Proizvodstvo kontsentrirrovannykh tomatoproduktov i tomatnogo soka. [A book]

Gordon, Yu. I. 164pp. (1969) [27 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 0.30 Rouble

This illustrated booklet, intended for canning industry personnel, consists of the following chapters: 'Raw material for tomato concentrate manufacture' (pp. 4-10); 'Tomato puree and tomato paste technology' (pp. 10-48); 'Production lines for tomato paste' (pp. 48-104); 'Tomato juice technology' (pp. 104-23); 'New trends in tomato product manufacture' (pp. 123-35); 'Packaging' (pp. 136-50); 'Quality requirements for finished products' (pp. 150-52); 'Spoilage signs' (pp. 152-53); 'Storage and transportation of finished products' (pp. 153-55); 'Production control' (pp. 155-57); and 'Safety procedures' (pp. 157-61). SKK

571

[Vegetable polysaccharides.] Rastitel'nye polisakharidy. [A book]

Anon.

143pp. (1970) [Ru] Kishinev, Moldavia, USSR: Akademiya Nauk Moldavskoi SSR. Price 0.55 rouble

Individual papers presented include: Carbohydrate changes in melons during storage; Study of hemicellulose in stored grapes; Study of polysaccharides content of some varieties of grapes used for wine production; Changes in the polysaccharides of plums as affected by trimming the tree crown; Study of *Aspergillus niger* and its pectolytic enzymes. STI

572

[Storage and processing of vegetable products.] Skladovani a zpracovani rostlinnych produktu. [A book.]

Dudas F.; Povolny, M.; Bajci, P. 387pp. (1969) [Cs] Prague: Statni Zemedelske Nakladatelstve. Price 24.50 Kcs.

This publication on the processing and storage of vegetable products is intended for research and study purposes. Main chapters of the book deal with the technology of: grain storage; flour production; malt and beer; potato storage; drying; starch, alcohol and yeast protein production; sugar beet storage and beet sugar production; storage and production of oils; storage and processing of fruit, vegetables and wine. STI

573

[Modern storehouses for vegetables.] Sovremennye ovoshchekhranilishcha. [A book]

Turov, V. M.; Antonov, M. V. 182pp. (1969) [36 ref. Ru] Moscow, USSR: Izdatel'stvo 'Ekonomika'. Price 0.5 Rouble

This illustrated book, intended for technical workers concerned with storage of vegetables, consists of a brief introduction and the following chapters: Calculation of capacity and determination of optimal distribution of storehouses (pp. 6-30); Long-term storage, purpose-built storehouses (pp. 31-151); and Economic efficiency of different methods of storing potatoes and vegetables (pp. 152-77). SKK

574

Marketing of Ontario's greenhouse vegetable products in competition with imports from Mexico. [A book]

Blum, H. (Canada Ontario Department of Agriculture and Food, Farm Economics, Co-operatives and Statistics Branch) vii + 90pp. (1969) [9 ref. En] Toronto, Ontario, Canada: Dept. of Agric. and Food

This study presents information on the background, development, economic structure and distribution procedures of the greenhouse vegetable (cucumbers, tomatoes) industry of Ontario and the fresh vegetable (cucumbers, tomatoes) export industry of W. Mexico. The

competitive relationship between them, their interrelationships and their activity on Canadian markets were examined. Stress is placed on Mexican imports through observing and describing vegetable production and distribution in Mexico and marketing procedures adopted for supplying Canadian markets. Economic problems confronting the greenhouse industry are delineated, price-risk situations are analysed, and improvements in marketing methods are suggested. Chapters are: The greenhouse industry in Canada and Ontario (pp. 1-20); Imports of competing field commodities (pp. 21-36); Ontario's marketing system of greenhouse production (pp. 37-45); Supply and distribution of vegetables from W. Mexico (pp. 52-65); Price behaviour and market competition (pp. 66-81); Marketing strategies (pp. 82-87); and Conclusions and recommendations (pp. 88-89). The information presented should contribute to the understanding of the economic effects of competition by those involved in national and international marketing of greenhouse products. JA

575

[Fundamentals of the biochemistry and technology of storage of potatoes.] Osnovy biokhimii i tekhnologiya khraneniya kartofelya. [Book] Metlitskii, L. V.; Gusev, S. A.; Tektonidi, I. P. 107pp. (1972) [many ref. Ru] Moscow, USSR, Kolos. Price 0.68 r

The subject is covered under the following chapter headings: Physiological and biochemical fundamentals of potato storage (pp. 5-54); Techniques for storing potatoes to meet the requirements of agriculture (covering pretreatment, losses, variations in storage conditions in relation to condition of and market for the potatoes, relation between storage temp. and potato var., and use of chemical and γ -irradiation to prevent sprouting) (pp. 55-113); Storage of potatoes in modern stores (pp. 114-159); and Storage of potatoes in clamps and trenches (pp. 161-198). HBr

576

[Potatoes and potato products.] Kartoffeln und Kartoffelerzeugnisse. [Book] Adler, G. 209pp. ISBN 3 489 63014 9 (1971) [507 ref. De] Berlin (West) Verlag Paul Parey Price DM 42

This well prepared and presented volume is No. 13 in the comprehensive series 'Fundamentals of and Progress in Food Analysis' (Grundlagen und Fortschritte der Lebensmitteluntersuchung) under the general editorship of Professors Schormüller & Melchior. The work is divided into the following chapters: The potato (covering origin, development in Germany, harvesting, botanical aspects, constituents and nutritive value); Potato products (covering historical aspects, requirements of raw materials storage, pretreatment and processing); Legislation and standards; and Test methods (covering fresh potatoes, crisps, chips and dried potato products). A useful 6-pp. index is included. HBr

577

[Technology of potato processing.] Technologia przetworstwa ziemniaczanego. [Book] Nowotny, F.; Palasinski, M.; Samotus, B.; Sroczyński, A.

625pp. (1972) [many ref. Pl] Warsaw, Poland, Wydawnictwa Naukowo-techniczne. Price 96 zł

This book contains the following chapters: economic aspects of potato processing in Poland; potatoes as industrial raw material; physical and chemical properties of starch; potato drying; potato processing into various products; potato starch manufacture; dextrin manufacture; syrup and glucose manufacture; modified starch production; potato processing in farm distilleries; analytical methods used in the potato processing industry. STI

578

[Economics of potato growing, grading, storage and processing.] Ekonomika pestovani, trideni, skladovani a zpracovani brambor. [A book] Zacek, M. 332pp. (1970) [52 ref. Cs] Prague, Czechoslovakia: CAZ-VUPP-STI. Price 59.35 Kcs

This book surveys the growing and processing of potatoes. The main chapters deal with: Growing potatoes in Czechoslovakia and other countries; Economics of potato growing; Grading potatoes; Storing potatoes; Potato processing; Utilization of waste from potato processing; Specialization of agricultural production. In addition to economic and organizational problems, processing methods and equipment used are described. STI

579

[Technology of drying potatoes, other vegetables and fruits.] Tekhnologiya sushki kartofelya, ovoshchei i plodov. [A book] Genin, S. A.

192pp. (1971) [Numerous ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennosti'. Price 0.64 rouble

This paperback book, designed for use by engineers and technical personnel engaged in the production of dried fruit and vegetables and food concentrates, contains the following chapters: Fruit, potatoes and other vegetables as raw material for drying (pp. 5-21); Storage of the raw material at the factory (pp. 21-38); Preparatory stages in the production of dried vegetables (pp. 38-70); Fundamentals of the drying process (pp. 71-87); Drying of potatoes and other vegetables (pp. 87-118); Drying of fruit, including berries (pp. 119-128); Production of dried potato puree and fruit and vegetables in powder form (pp. 128-163); Packaging and storage of dried produce (pp. 163-178); and Quality and quality control of dried produce (pp. 178-186). A 6-pp. bibliography is included. HBr

580

[Potato specialities.] Pochoutky z brambor. [A book]
Klimentova, M.; Stampach, S.
332pp. (1968) [Cs] Prague: SNZ. Price 13, - Kcs.

The book gives a historical review of the occurrence of potatoes in Central Europe, discusses the nutritive aspect of potatoes, and the problems of buying, storage and preparation. It does not consider the industrial treatment. 300 recipes for potato dishes are given including certain specialities from Great Britain, Ireland, USA, Canada, S. America, France, India, Asia, Italy, Hungary, Germany, Poland, Austria, USSR, Spain and Switzerland. STI

581

Sweet potatoes: production, processing, marketing. [A book]

Edmond, J. B.; Ammerman, G. R.
334pp. ISBN 0 87055 103 5 (1971) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc. Price US \$24.00 Foreign \$25.00 [Dept. of Horticulture, St. Univ., State College, Mississippi, USA]

This book, for growers, farm advisors, extension specialists and research scientists reviews and compares past and recent research on sweet potatoes, and shows the gaps in knowledge of sweet potato production and consumption. The subject is covered under the chapter headings: Taxonomy, history and industrial development (pp. 1-17, 44 ref.); Morphology and anatomy (pp. 18-29, 34 ref.); Physiology, biochemistry, and ecology (pp. 30-57, 75 ref.); Genetics, breeding behaviour and development of superior varieties (pp. 58-80, 101 ref.); Seedstock selection and plant production (pp. 81-105, 68 ref.); Soils, cropping systems, and commercial fertilizers (pp. 106-122, 51 ref.); Field production practices and operations (pp. 123-147, 79 ref.); Sweet potato pests, including destructive fungi (pp. 148-175, 117 ref.), viruses (pp. 176-188, 69 ref.), parasitic nematodes (pp. 189-195, 39 ref.), and destructive insects (pp. 196-207, 55 ref.); Harvesting, curing and storing (pp. 208-246, 129 ref.); Marketing the fresh product (pp. 247-263, 65 ref.); Canning sweet potatoes (pp. 264-282, 54 ref.); Dehydrating sweet potatoes (pp. 283-293, 42 ref.); Freezing sweet potatoes (pp. 294-305, 37 ref.); and Production for industrial uses and feed (pp. 306-328, 10 ref.). A subject index is included. JN

582

World cassava production and yield trends 1960-1968. [Book]

Diaz, R. O.
RB-1 vii + 119pp. (1972) [En & Es] Cali, Colombia, Centro Internacional de Agricultura Tropical

This report makes available a compilation of secondary data on area, production and yields of cassava and analyses recent trends in per capita cassava production in 82 countries. VJG

583

Simple methods for determination of methionine and cystine in legume seeds.

Herrick, H. E.; Lawrence, J. M.; Coahran, D. R.
Analytical Biochemistry 48 (2) 353-364 (1972)
[22 ref. En] [Dept. of Agric. Chem., Washington St. Univ., Pullman, 99163, USA]

Convenient and reliable methods have been developed for routine determination of S-containing amino acids in legume seeds. These procedures allow assessment of the content of nutritionally critical amino acids which should be considered in breeding programmes. Determination of methionine in pea, bean, and lentil seeds is based on TLC separation of methionine sulphone produced by performic acid treatment of the sample. Separated spots are treated with ninhydrin and the colour read by reflectance densitometry. Each 1 µl spot represents 40 µg of seed material containing ~0.4-0.8 nmole methionine. Interfering spots due to the product of ninhydrin with pipecolic acid are decolorized by light treatment. Adaptation and clarification of the method of Goa [Acta Chem. Scand. (1961) 15: 853] is suitable for routine determination of cystine plus cysteine. It is based on hydrazinolysis of samples, producing H₂S from cystine. H₂S is converted to bismuth sulphide and read in the colorimeter. Sample size was 40 mg of seed material containing 0.3-0.5 µmole cystine. AS

584

Pulse crops of India. [A book]

Kachroo, P.; Arif, M. (Editors)
334pp. (1970) [Numerous ref. En] New Delhi, India: Indian Council of Agric. Res.

An extensive work of reference on pulse crops, covering general and botanical characteristics, local names, production, area of distribution, genetics, breeding and selection of strains, cytology, physiology, agronomy, pests and diseases, nutritive value and uses, together with tabulated data, illustrations and extensive ref. Crops included are: General pulses, by T. R. Mehta, (pp. 1-13); Red gram, by G. N. Pathak, (pp. 14-53); Gram, by G. P. Argikar, (pp. 54-135); The Phaseolus group (including green gram, black gram, moth bean, rice bean and lima bean), by H. B. Singh, B. S. Joshi and T. A. Thomas, (pp. 136-164); Soybean and clusterbean, by H. B. Singh and S. P. Mital, (pp. 165-200); Cowpea, by N. Krishnaswamy, (pp. 201-232); Beans, by B. Choudhury, (pp. 233-255); Peas, by H. B. Singh and B. S. Joshi, (pp. 256-305); and Miscellaneous (including masur, khesari, vetches, horsegram), by S. Nezamuddin, (pp. 306-324). ELC

585

Cole crops. [A book]

Nieuwhof, M.
xxiii + 353pp. (1969) [Numerous ref. En] London: Leonard Hill. Price 150s. [Inst. of Horticultural Plant Breeding, Wageningen, Holland]

This book gives a general review of the different aspects of the subject of cabbages and their allies throughout the world. It considers the botany and cultivation of Brassicas and will be of particular value to agriculturists and research scientists. The first 2 chapters (pp. 1-25) give details of the history, world production and botany of cole crops. The next 6 chapters consider the soil and climatic requirements, varieties, culture and harvesting of: 'Cabbages' (pp. 26-56); 'Cauliflower' (pp. 57-77); - '378 Brussels sprouts' (pp. 78-86); 'Sprouting broccoli' (pp. 87-91); 'Curly kale' (pp. 92-95); and 'Kohlrabi' (pp. 96-101). Other chapters included are 'Manuring and fertilizing' (pp. 102-31); 'Diseases and pests' (pp. 132-205); 'Seeds' (pp. 206-22); 'Breeding' (pp. 223-62); 'Processing and storage' (pp. 263-85) and 'Composition and preparation' (pp. 286-324.). Each chapter is provided with a detailed bibliography arranged according to subject. VJG

586

The use of fungi as food and in food processing. [A book]

Gray, W. D.

v + 113pp. ISBN 0 408 70173 0 (1970) [Numerous ref. En] London, UK: Butterworths [Dept. of Biol. Sci., N. Illinois Univ., DeKalb, Illinois, USA]

A section on fungi in cheesemaking is included in this book, which is mainly a reprint of a review published in *CRC Crit. Rev. Food Technol* (1970) 1 (2) 225-329 [See *FSTA* (1970) *CRC* 11G403]. JMD

587

[Mushroom dishes.] Gribnyy Myuda. [book]

Maksimov, I. N.

174pp. (1971) [Ru] L'vov, USSR, Izdatel'stvo Kamenyar. Price 0.38 r

This book includes chapters dealing with: nutritional value of mushrooms; snacks; main dishes; gravies; confectionery products; description of species of mushrooms; mushroom poisoning and its treatment; and recipes. STI

588

Mushroom science VII. [Conference proceedings]

Sengbusch, R. von. (Chairman)

614pp. (1969) [Numerous ref. En, fr, de]

Wageningen, The Netherlands: Centre for

Agricultural Publishing & Documentation. Price Dfl. 50.00.

The papers presented at the Second Scientific Symposium and the Seventh International Congress on Mushroom Science, held in Hamburg, May 3 to 9, 1968 included the following: 'The action of CO₂ concentrations on the metabolism of the *Agaricus bisporus* sporophore', by P. le Roux (pp. 31-36, 10 ref.); 'Study on free keto-acids in fruit bodies of *Agaricus campestris* Fr. var. *bisporus* and their participation in the synthesis of amino acids by means of transamination', by J. C. Latche, (pp. 51-57, 13

ref.); 'Preliminary studies of mushroom tyrosinase (polyphenol oxidase)', by T. L. Long & J. O. Alben (pp. 69-79, 21 ref.); 'Ideas on the cultivation of edible fungi', by P. J. Bels (pp. 287-94, 13 ref.); 'Quality control and the marketing of fresh mushrooms', by D. J. Longhill (pp. 479-84); 'Quality assessment of mushrooms: relationship between moisture loss, colour and toughness of harvested cultivated mushrooms', by C. Mac Canna & T. R. Gormley (pp. 485-92, 6 ref.); 'Processing costs in the mushroom canning industry in the USA', by W. T. Butz, R. O. Herrmann & C. W. Coale, Jr. (pp. 493-98); 'An economic-engineering comparison of conventional and experimental cutting methods in the US mushroom processing industry', by C. W. Coale, Jr., W. T. Butz & R. O. Herrmann (pp. 499-506, 4 ref.); 'The present state of breeding work with strain 59c', by R. von Sengbusch & G. Fritsche (pp. 507-13, 10 ref.); 'The cultivated mushroom's competitors', by K. Lohwag (pp. 565-70, 9 ref.). VJG

589

[Mushrooms for your table.] Griby dl'ya vashego stola. [A book.]

Kapustin, K. I.; Vorob'eva, L. I.

125 pp. (1969) [Ru] Moscow, USSR: Pishchevaya promyshlennost. Price 16 k.

Topics considered are: identification of different types of mushroom; treatment of mushrooms before cooking; and preservation of mushrooms by salting, pickling and drying. Recipes are given for dishes containing mushrooms. STI

590

[Mushrooms in nature and in the kitchen.] Houby v prirode a v kuchyni. [A book]

Smotlacha, M.; Novak, J.

261pp. (1969) [Cs] Prague: Merkur. Price 23 Kcs.

The publication gives a general survey of mushrooms and their occurrence, classification, growth and multiplication, morphology, names, usage and composition. Other sections include: mushrooms in human nutrition; picking of mushrooms and their use in the household; poisonous mushrooms and mushroom poisoning, with basic instructions in case of poisoning and coloured pictures of edible mushrooms and poisonous mushrooms. STI

591

[Czechoslovak mushrooms in their natural environment.] Houby Ceskoslovenska ve svem zivotnim prostredi. [A book]

Pilat, A.

264pp. (1969) [Numerous ref. Cs] Prague, Czechoslovakia: Academia. Price 55.- Kcs.

This book gives an ecological survey of mushrooms which grow in different parts of Czechoslovakia. Historical development of the mycoflora and its relation to the environment is described. The book is divided into parts according to the natural occurrence of the individual types of

mushrooms and other fungi, including parasitic fungi. STI

592

[Field mushrooms. Cultivation and culinary preparation.] Zampiony - pestovani a kuchynska uprava. [A book]
 Stanek, M.; Smotlacha, M.; Hovadik, A.
 229pp. (1969) [28 ref. Cs] Prague, Czechoslovakia: Statni Zemedelske Nakladatelstvi. Price Kcs 10.-
 The first part deals with cultivation of field mushrooms, including modern methods of commercial mushroom cultivation. The last 2 chapters discuss the problems of mushroom preservation and utilization in food industry. Finally many recipes for the preparation of special dishes with field mushrooms are given. STI

593

[Guide to mushrooms.] Atlas hub. [A book]
 Pilat, A.; Usak, O.
 192pp. (1968) [Cs] Prague: Statni pedagogicke nakladatelstvi. Price 20,-Kcs.
 The purpose of this book is to enable easier identification of the most current spp. of edible and poisonous mushrooms of practical significance. STI

594

[Bibliography of the filbert: agriculture, trade, industry. 1945-1972.] Findik bibliografyasi: ziraat, ticaret, endustri. 1945-1972. [Book]
 Cakman, A.
 vi+47pp. (1972) [Tr, En] Ankara, Turkey, Turdok Yayinlari

This bibliography consists of 535 references classified into the groups: General; Economics; Culture; Diseases and pests; Biology, biochemistry and composition; Harvesting, thrashing, storage and technology; Food and industry; Miscellaneous. A 7pp author index, a chronological index to references, and a list of periodical title abbreviations are given. JN

595

Peanuts: production, processing, products. [Book]
 Woodroof, J. G.
 2nd Edition xi+330pp. ISBN 0 87055 133 7
 (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$17 (USA) \$18 (Foreign) [Univ. of Georgia, Experiment, USA]

This updated, revised version of the textbook first published in 1966 covers the subject under the headings: Historical background (pp. 1-14, 15 ref.); World production and marketing of peanuts, by F. A. Kutish (pp. 15-43); Culture of peanuts (pp. 44-92, 29 ref.); Harvesting, curing and shelling (pp. 93-110, 30 ref.); Storing peanuts (pp. 111-138, 24 ref.); Composition and nutritive value of peanuts (pp. 139-152, 26 ref.); Peanut butter

(pp. 153-193, 52 ref.); Salted peanuts (pp. 194-225, 28 ref.); Peanut confections (pp. 226-246, 9 ref.); Peanut oil (pp. 247-257, 19 ref.); and Technological developments in peanut uses, (by K. H. McWalters, pp. 258-299, 66 ref.). The appendices give US Standards for various peanut varieties and peanut butter. A 5-pp. subject index is included. JN

596

Coconuts: production, processing, products. A book]
 Woodroof, J. G.
 ix+241pp. ISBN 0 87055 092 6 (1970) [Numerous ref. En] Westport, Connecticut, USA AVI Publishing Co., Inc. Price \$ 18.50 (US) \$ 19.50 (Foreign) [Univ., Georgia, USA]

Information concerning the production and processing of coconuts is grouped under the following 10 chapter headings: The coconut palm, (pp. 1-13, 10 ref.); Coconut varieties and propagation, by J. Popenoe (pp. 14-22, 6 ref.); Coconut growing (pp. 23-42, 23 ref.); Copra production and uses (pp. 43-72, 18 ref.); Coconut oil, production and uses (pp. 73-98, 27 ref.); Coconut storage and processing, and minor uses of products of the coconut tree (pp. 99-12, 33 ref.); Domestic and industrial coconut products (including coconut shells, desiccated coconut, toddy, coir, coconut water) (pp. 127-48, 14 ref.); Coconut in foods (pp. 149-61, 8 ref.); Coconut food products and bases, by L. E. Cancel (pp. 162-88, 34 ref.); Coconut in home recipes (pp. 189-213, 13 ref.). An appendix (pp. 214-35) gives definitions for coconut, toasted coconut, coloured coconut, coconut flour, creamed coconut and gem coconut together with detailed specifications for 22 coconut products. VJG

597

Tree nuts: production, processing, products. Vol. 1. [A book]
 Woodroof, J. G.
 vii+356pp. (1967) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co. Inc. Price \$18.50 (US) \$19.50 (Foreign) [Univ., Georgia, USA]

Factors influencing the quality and quantity of tree nuts are discussed for each kind of nut under varieties, soils, climate, culture, pest control, harvesting methods, storage facilities, methods of shelling and grading, containers and manufacturing procedures. Composition and nutritive value, roasting and salting, and recipes for using nuts in the home and restaurants are included. 11 kinds of nuts given major attention are: almonds, Brazil nuts, cashew nuts, chestnuts, filberts, macadamia nuts, pecans, pine nuts, pistachio nuts, black walnuts and English walnuts. 6 discussed in less detail are: apricot nuts, beechnuts, butternuts, chinquapins, heartnuts and hickory nuts. The 4 appendices cover 'US Standards for grades of shelled almonds, Aug. 15, 1960'; 'US Standards for grades of almonds in the shell, July 15, 1964'; 'US Standards for grades of Brazil

nuts in the shell, June 1, 1966'; and 'US Standards for grades of filberts in the shell, Nov. 25, 1961' AB

598

Soybeans: chemistry and technology. Vol. 1.**Proteins.** [A book]

Smith, A. K.; Circle, S. J. (Editors)

x+470pp. ISBN 0 87055 111 6 (1972)

[Numerous ref. En] Westport, Connecticut, USA:

AVI Publishing Co. Inc. Price \$23.00 (USA),

\$24.00 (Foreign)

This book reviews research and development over the past 20 yr on food uses of soybean protein products, primarily in occidental foods. The fundamental chemistry and associated research important in improving these products for use by the food industry are also covered. Chapters are: Historical background, by A. K. Smith & S. J. Circle (pp. 1-26, 52 ref.); Genetic and other biological characteristics, by R. W. Howell & B. E. Caldwell (pp. 27-60, 145 ref.); Chemical composition of the seed, by A. K. Smith & S. J. Circle (pp. 61-92, 54 ref.); Purification and properties of the proteins, by W. J. Wolf (pp. 93-143, 164 ref.); Organic solvent treatment of soybeans and soybean fractions, by A. C. Eldridge (pp. 144-157, 78 ref.); Biologically active components, by J. J. Rackis (pp. 158-202, numerous ref.); Nutritional value of food protein products, by I. E. Liener (pp. 203-277, numerous ref.); Biological processes in stored soybeans, by C. M. Christensen & H. H. Kaufmann (pp. 278-293, 19 ref.); Processing soy flours, protein concentrates, and protein isolates, by S. J. Circle & A. K. Smith (pp. 294-338, 119 ref.); Protein products as food ingredients, by A. K. Smith & S. J. Circle (pp. 339-388, 169 ref.). [Continued in following abstr.] JA

599

Soybeans: chemistry and technology. Vol. 1.**Proteins.** [A book]

Smith, A. K.; Circle, S. J. (Editors)

x+470pp. ISBN 0 87055 111 6 (1972)

[Numerous ref. En]

[Continued from preceding abstr.] Fermented soybean food products, by C. W. Hesseltine & H. L. Wang (pp. 389-419, 54 ref.); and Marketing of soybeans and their protein products, by D. E. Hooton & D. W. Johnson (pp. 420-437, 16 ref.). An appendix (pp. 438-456, 4 ref.) gives: a glossary of soybean terms; standard specifications for soybean products; official US standards for soybeans; analytical data range for commercial soy protein products; names and addresses of US companies marketing soy protein food ingredients; and methods for determining the N solubility index, the protein dispersibility index, urease activity, and water absorption of soy flour. JA

CHOCOLATE

600

[Some aspects of chocolate manufacture.]

Wytwarzanie korpusow i nadzien do warobow czekoladowach. [A book]

Barlinska, H.; Nawalany, W.

192pp. (1971) [19 ref. Pl] Warsaw, Poland:

Wydawnictwa naukowo-techniczne. Price 18 zl.

The manufacture of centres and various fillings used in the production of chocolate products is described and also the use and manufacture of chocolate coatings for various confectionery products. STI

601

Chocolate, cocos and confectionery: science and technology. [A book]

Minifie, B. W.

viii+624pp. ISBN 0 7000 1467 5 [J & A. Churchill]

ISBN 0 87055 097 7 [AVI Publishing Co., Inc.]

(1970) [Numerous ref. En] London, UK: J. & A.

Churchill. Price £6.00 Westport, Connecticut, USA:

AVI Publishing Co., Inc. Price \$23.50 (USA) \$24.50

(Foreign) [Knechtel Lab. Inc., Chicago, Illinois, USA]

The subject is covered in 3 parts, with the emphasis on technology. Part I - "Cocoa and chocolate" contains chapters on: History of cocoa and chocolate (pp. 1-24, 14 ref.); Cocoa processes (pp. 25-53, 12 ref.); Cocoa butter and replacement fats (pp. 54-72, 22 ref.); Lecithin - chemistry and uses in chocolate and cocoa (pp. 73-87, 15 ref.); Chocolate manufacture (pp. 88-104, 5 ref.); Confectionery coatings, dietetic chocolates (pp. 105-116, 3 ref.); Chocolate bars and covered confectionery - production methods (pp. 117-43, 2 ref.). Part II - "Confectionery" covers: Confectionery - sugars (pp. 144-63, 7 ref.); Confectionery fats (pp. 164-78, 2 ref.); Milk and milk products (pp. 179-92, 8 ref.); Egg albumen and other whipping agents (pp. 193-99, 7 ref.); Gelatinizing agents, gums, glazes, pectin (pp. 200-17, 8 ref.); Starches, modified starches, soya flour, soya protein (pp. 218-26, 7 ref.); Jam, preserved fruit (pp. 227-37, 7 ref.); Nuts (pp. 238-53, 7 ref.); Chemical and allied substances (pp. 254-79, 17 ref.); Colours (pp. 280-86, 2 ref.); Flavour and flavouring materials (pp. 287-316, 11 ref.); Confectionery processes and recipes (pp. 317-93, 10 ref.). Part III - "General Technology" covers: Bloom, microbiological and other spoilage problems (pp. 394-415, 17 ref.); Pest Control (pp. 416-41, 18 ref.); Wrapping and packaging (pp. 442-87, 29 ref.); Quality control (pp. 488-511, 6 ref.); Food value of chocolate and confectionery (pp. 512-18, 4 ref.); Organization of research and development (pp. 519-22); [Continued in following abstr.] JN

602

Chocolate, cocoa and confectionery: science and technology. [A book]

Minific, B. W.

viii + 624pp. ISBN 0 7000 1467 5 [J. & A. Churchill]
ISBN 0 87055 097 7 [AVI Publishing Co., Inc.]
(1970) [Numerous ref. En] London, UK: J. & A.
Churchill. Price £6.00 Westport, Connecticut, USA:
AVI Publishing Co. Inc. Price \$23.50 (USA) \$24.50
(Foreign)

[Continued from preceding abstr.] There are
appendices on: Special instruments and methods of
analysis applied to cocoa, chocolate, and
confectionery; and General bibliography. A
supplement deals with modern developments in plant
and process and there is a subject index. JN

603

[Production of cocoa.] Wyroba kakaa. [A book]
Wyczanski, S.

93pp. (1968) [Pl] Warsaw, WPL. Price 10 zl.

This book surveys modern methods of pressing
cocoa and cocoa butter, and describes new

machinery and equipment used for the purpose. It
deals with: calorific value and classification of
cocoa varieties; processing technology; cocoa
beans - cleaning and screening, roasting, milling,
peeling; alkalization of cocoa powder; yield rate,
filtration, settling and packing of cocoa butter;
types of presses used for cocoa mass; function of
hydraulic presses; continuous lines for cocoa
processing; properties of cocoa and common
defects in the finished product; determination of
sedimentation and the degree of grain fineness of
chocolate mass, and of cocoa used for direct
consumption or for further processing in the
confectionery and bakery industries. STI

604

[The production of chocolate mass.] Otrzymywanie
mas czekoladowych. [A book]

Barlinska, H.; Nawalany, W.

72 pp. (1968) [6 ref. Pl] Warsaw: Biblioteka
piekarza i cukiernika. Price 9,- zl.

This book is intended for workers in the
confectionery industry. It gives the
characteristics of raw materials and semi-
manufactured products, and describes the most
important methods of treatment of chocolate
mass. It also considers new machinery for
chocolate manufacture. STI

605

[The shaping of chocolates.] Formowanie mas
czekoladowych. [A book]

Barlinska, H.; Nawalany, W.

80 pp. (1968) [6 ref. Pl] Warsaw: Biblioteka
piekarza i cukiernika. Price 9,- zl.

New methods of shaping chocolate bars, and filled
chocolates (figures, bonbons etc.) are discussed.
The use of new machinery, and technology is

described. This book is designed for workers in
the confectionery industry. STI

SUGARS, STARCHES

606

**Sugar. Chemical, biological and nutritional
aspects of sucrose.** [A book]

Yudkin, J.; Edelman, J.; Hough, L. (Lynch, G. W.;
Watson, R. H. H.; Brook, M.; Hickson, J. L.;
Buchanan, J. G.; Parker, K. J.; Fewkes, D. W.;
Hartles, R. L.) (Editors)

246pp. ISBN 0 408 70172 2 (1971) [Numerous ref.
En] London, UK: Butterworth & Co. (Publishers)
Ltd. Price £ 4.50 (UK only) [Dept. of Nutr., Queen
Elizabeth Coll., Univ., London, UK]

The chapters of this book are the papers
presented at a symposium held at Queen Elizabeth
Coll., London in Sept. 1969. The scope of the
book is such that it will prove of interest to
chemists, biochemists, animal and plant
physiologists, clinicians, sociologists,
nutritionists and food manufacturers. The papers
are grouped into 5 sections: Sucrose as a food
(pp. 9-46); The chemistry of sucrose (pp. 47-92);
Sucrose in the plant (pp. 93-151); The absorption
and metabolism of sucrose in animals (pp. 153-
199); and Sucrose and human disease (pp. 201-242).
Individual papers include: Sugar as a food: a
historical survey, by J. Yudkin (pp. 11-17, 4
ref.); Social aspects of the taste for
sweetness, by G. W. Lynch (pp. 18-23, 7 ref.);
Sugar and food choice, by R. H. J. Watson (pp. 24-
31, 14 ref.); Sucrose and the food
manufacturer, by M. Brook (pp. 32-46, 24 ref.).
The chemical reactivity of sucrose, by L. Hough
(pp. 49-59, 12 ref.); Utilization of sucrose by
the chemist, by J. L. Hickson (pp. 60-68); The
chemical synthesis of sucrose phosphates, by J. G.
Buchanan (pp. 80-84, 20 ref.); Chemical
problems in the sucrose industry, by K. J. Parker
(pp. 85-92, 6 ref.); Plant growth regulators and
the accumulation of sucrose in sugar
cane, by D. W. Fewkes (pp. 133-151, 88 ref.); and
Sucrose and dental caries, by R. L. Hartles (pp.
221-230, 29 ref.). A subject index is included. JA

607

Polysaccharides. [A book]

Aspinall, G. O.

xvi + 228pp. SBN 08 013409 2 (hard cover) 08
013408 4 (flexicover) (1970) [Numerous ref. En]
Oxford, UK: Pergamon Press Ltd. [Trent Univ.,
Peterborough, Ontario, Canada]

This book has been written as an advanced
monograph suitable for reading in connection with
courses in chemistry or biochemistry. Chapters
are: Nature, occurrence and classification of
polysaccharides (pp. 1-12); Isolation and
determination of structure (pp. 13-42, 35 ref.);
Cellulose (pp. 43-53, 21 ref.); Starch and
glycogen (pp. 54-68, 21 ref.); Other glucans and
fructans (pp. 69-84, 35 ref.); Mannans,
galactomannans and glucomannans (pp. 85-93, 15

ref.); Galactans (pp. 94-102, 14 ref.); Arabinans and xylans (pp. 103-115, 23 ref.); Glycuronans (pp. 116-129, 26 ref.); Complex acidic polysaccharides (pp. 130-144, 18 ref.); Sulphated polysaccharides (pp. 145-157, 22 ref.);

Aminopolysaccharides (pp. 158-181, 46 ref.) Biosynthesis of polysaccharides (pp. 182-193 ref.); and Other carbohydrate-containing macromolecules (pp. 194-221, 53 ref.). A sub index is included. JA

608

[General technology of carbohydrates.] Obshchaya tekhnologiya sakharistyykh veshchestv. [A book] Arkhipovich, N. A.

520pp. (1970) [28 ref. Ru] Kiev, USSR: Izdatel'stvo Vishcha Shkola'. Price 1.25 rouble

This handbook for students of technical colleges in the food field deals with the manufacture of starch, glucose syrup and glucose. The part on sugar consists of the following chapters: Sugar beet (pp. 12-55); Preliminary operations (pp. 56-77); Extraction of sucrose from sugar beet (pp. 78-119); Purification of diffusion juice (pp. 120-71); Concentration of juice (pp. 172-94); Production of crystalline sucrose (pp. 195-233); Production calculations (pp. 234-36); Factory supplies of water, steam and power (pp. 237-40); Other sugar sources (pp. 241-45); and Production of refined sugar (pp. 246-96). The part on starch, glucose syrup and glucose consists of the following chapters: Starch (pp. 298-309); Production of potato starch (pp. 310-61); Production of maize starch (pp. 362-433); Production of dried starch, dextrins and modified starches (pp. 434-57); Production of glucose syrup (pp. 458-89); and Production of glucose (pp. 490-510). SKK

609

Handbook of sugars for processors, chemists and technologists. [Book]

Junk, W. R.; Pancoast, H. M.

xiii + 327pp. ISBN 0 87055 133 7 (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$20.50 (USA) \$21.50 (Foreign)

A considerable amount of information of value to food manufacturers is given, on physical properties of sucrose and corn sugars, under the chapter headings: Sucrose (cane or beet sugars) (pp. 1-6, 16 ref.); Granulated sugar (pp. 7-18, 7 ref.); Liquid sugars (pp. 19-23, 2 ref.); Properties of sucrose liquid sugars (pp. 24-49, 11 ref.); Properties of invert and sucrose-invert liquids (pp. 50-66, 8 ref.); Specialty sugar products (pp. 67-71); Bulk handling of sugar (pp. 72-88, 2 ref.); Corn milling industry (pp. 89-94, 18 ref.); Manufacture of corn syrups and sugars (pp. 95-104, 18 ref.); Properties of corn syrups (pp. 105-156, 31 ref.); Properties of corn sugars (pp. 157-169, 11 ref.); [Continued in following abstr.] JN

610

Handbook of sugars for processors, chemists and technologists. [Book]

Junk, W. R.; Pancoast, H. M.

xiii + 327pp. ISBN 0 87055 133 7 (1973) [many ref. En]

[Continued from preceding abstr.] Handling and storage methods (pp. 170-180, 2 ref.); Analytical methods (pp. 181-187, 9 ref.); and Blends of sucrose, corn syrup and dextrose (pp. 188-224, 5 ref.). A series of appendices give: Canners' microbiological standards for sugar (with test procedures) (pp. 225-229); Standards and test procedures for 'bottler's' granulated and liquid sugar (pp. 230-234); Official methods of analysis of International Commission for Uniform Methods of Sugar Analysis (pp. 235-255); Standard analytical methods of the member companies of the Corn Refiners Association Inc. for corn syrup analysis (pp. 256-308); Standard analytical methods of the member companies of the Corn Refiners Association Inc. for corn sugars (pp. 309-318); and Analytical methods for corn syrup solids (pp. 319-320). A 7-pp. subject index is provided. JN

611

[Designing sugar factories.] Diplomnoe proektirovanie sakharnykh zavodov. [A book] Lander, A. B.; Popov, A. O.; Rozengart, I. V.; Shepshelevich, L. A.

108pp. (1971) [25 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.58 rouble

This book, approved by the Ministry of the Food Industry of the USSR as a textbook for technical colleges, consists of the following parts of a diploma course: Technical and economic fundamentals (pp. 6-9); Selection of production schedules and equipment (pp. 9-35); Individual items of equipment (pp. 35-46); Types of product to be produced (pp. 46-82); Types of equipment required (pp. 82-116); Heat requirements of sugar factory (pp. 116-147); Water requirements of sugar factory (pp. 147-161); Safety aspects and welfare (pp. 161-162); Design and building (pp. 163-168); Mechanization of operations outside the factory (pp. 168-177); Automation of manufacturing processes (pp. 177-182); Electrical aspects (pp. 183-186); Sanitation (pp. 186-190); and Economic aspects (pp. 190-200). HBR

612

[Technical equipment in sugar factories.] Tekhnologicheskoe oborudovanie sakharnykh zavodov. [A book]

Grebenyuk, S. M.

528pp. (1969) [130 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost' Price 1.69 rouble

This well-produced and illustrated book is intended for use as a textbook for universities with food departments. It contains the following chapters: Equipment for cleaning beet and

delivering it to the factory (pp. 13-42); Weighing equipment (pp. 43-55); Beet chipping machines (pp. 56-88); Diffusers (pp. 89-150); Equipment for purifying diffusion juice and syrup (pp. 151-81); Filtrations and clarification equipment (pp. 182-242); Equipment for production and purification of juices from sugarbeet refining (pp. 243-63); Evaporators (pp. 264-96); Batch and continuous vacuum equipment (pp. 297-321); Condensers (pp. 322-41); Centrifuges (pp. 342-412); Driers (pp. 413-51); Presses (pp. 452-96); and Crushing and packaging machines and continuous sugar lines (pp. 497-514). HBr

613

[Evaporators in sugar factories and their control.] Vyparnaya stantsiya sakharnogo zavoda kak ob'ekt regulirovaniya. [A book] Kulik, M. I. 80pp. (1968) [19 ref. Ru] Moscow, USSR: Tsentral'nyi Inst. Nauchno-Tekhnicheskoi Informatsii Pishchevoi Promyshlennosti. Price 0.30 rouble

This manual, intended for specialist personnel concerned with design and servicing of large evaporating installations, deals with thermal calculations and operational control of sugar factory evaporators. SKK

614

Analytical methods used in sugar refining. [A book] Plews, R. W. (Editor) viii + 234pp. (1970) [10 ref. En] Amsterdam, Netherlands, London, UK & New York, USA: Elsevier Publishing Co. Ltd. Price Dfl. 43.00

The analytical methods described are those used by Tate & Lyle Refineries Ltd. Although primarily intended for workers in the sugar industry, the book will also be useful to workers in allied industries. For each method, the principles upon which it is based are described, apparatus and reagents required are specified, the procedure is given in detail, and methods of calculation prescribed. Chapters are: Polarization (pp. 1-4); Determination of sucrose in molasses (pp. 5-8); Determination of reducing sugars (pp. 9-22); Determination of ash (pp. 23-36); Determination of water (pp. 37-62, 3 ref.); Colour measurement by absorptiometry (pp. 63-73); Analysis of refined sugars (pp. 74-93); Measurement of pH (pp. 94-101); Determination of inorganic non-sugars and trace elements (p. 102-34, 1 ref.); Microbiological examination of sugars (pp. 130-55); Determination of raffinose (pp. 156-61, 3 ref.); Determination of starch in raw sugars (pp. 162-64); Determination of silica (pp. 165-66, 1 ref.); Determination of waxes (pp. 167-68) Analysis);, 1 ref.); Analysis of charcoal (pp. 172-82); Analysis of water (pp. 183-201); Analysis of fuel (pp. 202-13); Candy test (pp. 214-17, 1 ref.); and Determination of brewer's extract (British system) (pp. 218-22). JA

615

[Technology of sugar. The raw sugar factory and refinery.] Technologie cukru. Surovarna a rafinerie. [A book] Bretschneider, R. 404pp. (1969) [42 ref. Cs] Prague, Czechoslovakia; SNTL. Price 32.- Kcs.

This book deals with modern methods and principles of raw sugar production and refining. Data on world sugar production and on sugar production in Czechoslovakia are included. The importance of sugar in the diet is dealt with and a survey of sugar beet as the raw material for sugar production is given. Production technology of cane sugar is also described. Production of individual types of sugar is described in detail. STI

616

System of cane sugar factory control. [Book] Clayton, J. L. (International Society of Sugar Cane Technologists) (Editor) 3rd edition. 87pp. (1971) [En] Australia, Queensland Society of Sugar Cane Technologists. Price £1.25, \$A2.50

This completely rewritten 3rd edition contains the following chapters: Introduction and some premises (pp. 11-12); Principles of milling control (pp. 13-17); Determinations and calculations for milling control (pp. 18-28); Control of the boiling house (pp. 29-38); Methods of weighing and measuring (pp. 39-46); Methods of sampling (pp. 47-54); Methods of analysis (pp. 55-74); and Definitions and interpretations (pp. 75-80) which consists of a glossary of relevant terms in English, Dutch, French and Spanish. An appendix gives conversion tables for USA, British and metric units. JA

617

[Technological equipment of sugar factories.] Tekhnologicheskoe oborudovanie sakharnykh zavodov. [Book]

Azrilevich, M. Ya. 2nd edition 312pp. (1972) [46 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'

This book, intended as a textbook for specialist food schools, covers the following topics: General information on equipment in sugar factories; Transportation and cleaning of the sugarbeet; Juice production; Cleaning of juice and syrup; Filtration; Heating, evaporation and boiling down; Processing of massecuite; Drying, packaging and briquetting of fodder pulp; The lime section; Production of refined lump sugar; and Transport and vacuum compression equipment. HBr

618

Handbook of cane sugar engineering. [A book] Hugot, E. 2nd edition xvi + 1079pp. ISBN 0 444 40896 7

(1972) [Numerous ref. En] Amsterdam, The Netherlands: Elsevier Publishing Co. [Societe des Sucreries de Bourbon, Saint-Denis, Reunion]

The completely revised second edition aims to give managers, engineers, chemists and designers of cane sugar factories a complete description of the various factory machines. At least one third of the book is new material including a large chapter devoted to continuous diffusion. The following chapters are included: Delivery, unloading and handling of cane (pp. 1-19, 3 ref.); The cane carrier (pp. 20-30); Cane knives (pp. 31-44, 10 ref.); Tramp iron separators (pp. 45-48); Crushers (pp. 49-61, 2 ref.); Shredders (pp. 62-72, 5 ref.); Combinations of cane preparators (p. 73); Feeding of mills and conveying of bagasse (pp. 74-98, 20 ref.); Roller grooving (pp. 99-112, 5 ref.); Pressures in milling (pp. 113-175, 23 ref.); Mill speeds (pp. 176-183, 6 ref.); Mill capacity (pp. 184-195, 14 ref.); Mill settings (pp. 196-221, 8 ref.); Power requirements of mills (pp. 222-238, 25 ref.); Steam engines for mill drives (pp. 239-241); Electric drive of mills (pp. 242-250, 1 ref.); Mill drive by steam turbine (pp. 251-255, 1 ref.); Mill gearing (pp. 256-261, 2 ref.); Construction of mills (pp. 262-276, 1 ref.); Imbibition (pp. 277-312, 13 ref.); Extraction (pp. 313-322, 8 ref.); Milling control (pp. 323-343, 18 ref.); Fine bagasse separators (pp. 344-349, 5 ref.); Diffusion (pp. 350-400, 10 ref.); Defaecation (pp. 401-409, 11 ref.); Sulphitation (pp. 410-416, 11 ref.); Clarification with phosphoric acid (pp. 417-418, 1 ref.); [Continued in following abstr.] VJG

619

Handbook of cane sugar engineering. [A book] Hugot, E.

2nd edition xvi + 1079pp. ISBN 0 444 40896 7 (1972) [Numerous ref. En]

[Continued from preceding abstr.] Carbonatation (pp. 419-429, 16 ref.); Use of magnesia in clarification (pp. 430-431, 1 ref.); Subsidation (pp. 432-447, 15 ref.); Juice heating (pp. 448-465, 20 ref.); Filtration (pp. 466-487, 29 ref.); Evaporation (pp. 488-607, 77 ref.); sugar boiling (pp. 608-688, 104 ref.); Crystallization (pp. 689-712, 34 ref.); Centrifugal separation (pp. 713-766, 32 ref.); Storage and drying of sugar (pp. 767-776, 19 ref.); Sugar (pp. 777-779, 8 ref.); Molasses (pp. 780-781, 5 ref.); Boiling house control (pp. 782-794, 5 ref.); Vacuum equipment (pp. 795-855, 39 ref.); Steam production and usage (pp. 856-973, 73 ref.); Steam engines (pp. 974-986, 3 ref.); Steam turbines (pp. 987-1007); Electricity (pp. 1008-1036, 4 ref.); Pumps (pp. 1037-1050, 5 ref.); and Piping and fluid flow (pp. 1051-1059, 8 ref.). VJG

620

By-products of the cane sugar industry. [A book] Paturau, J. M.

viii + 274pp. (1969) [Numerous ref. En] Amsterdam, London, New York : Elsevier Publishing Co. Price 200s. [Forges Tardieu Ltd., Port Louis, Mauritius]

This comprehensive text has been compiled from available technical data on sugar cane by-products. It is intended as an introductory textbook for students in sugar engineering and agricultural chemistry, as a handbook for factory managers, chemists and engineers, and to be of interest to proprietors of sugar estates or industrialists. The book is divided into 5 parts: 'General'; 'Bagasse'; 'Filter mud and cane wax'; 'Molasses'; 'Miscellaneous by-products'. The following chapters are included: 'Sucrose derivatives' (pp. 11-22); 'Characteristics of bagasse' (pp. 25-42); 'Direct and indirect utilization as fuel' (pp. 43-55); 'Fibrous products' (pp. 57-94); 'Miscellaneous products' (pp. 95-116); 'Filter mud' (pp. 119-21); 'Cane wax' (pp. 123-29); 'Characteristics of molasses' (pp. 133-35); 'Direct utilization of molasses' (pp. 137-52); 'Distilling industries' (pp. 153-90); 'Other fermentation industries' (pp. 191-233); 'Miscellaneous products from molasses' (pp. 235-51); 'Bagasse ash' (pp. 253-57); 'Protein from cane juice' (pp. 259-60). 4 appendices are included: 'Approximate value upgrading of by-products'; 'Imports into UK'; 'A tentative list of the main bagasse pulp and paper factories (1967)'; and 'A tentative list of the main bagasse, fibreboard and particle board plants (1967)'. VJG

621

Manufacture and refining of raw cane sugar. [A book]

Baikow, V. E.

xvi + 453pp. (1967) [Numerous ref. En] Amsterdam, London & New York: Elsevier Publishing Co. Price 175s.

This technical book, intended as an operating manual for workers in raw cane sugar factories and refineries, covers all phases of raw cane sugar production and refining. It is written in plain language and contains a detailed subject index and many useful tables, drawings and photographs. JN

622

Sugar cane factory analytical control. The official methods of the Hawaiian sugar technologists. [A book] Payne, J. H. (Editor)

190 pp. (1968) [En] Amsterdam, London and New York:

Elsevier. Price 152s. [American Factors Associates, Ltd., Honolulu, Hawaii, USA]

This 5th revised edition, last published in 1955, contains chapters on definitions (pp.1-3), apparatus (pp.5-27), sampling and sampling devices (pp.29-36), reagents (pp.37-48), analyses (pp.49-96), boiler water control (pp.97-102), extraction and cane calculations (pp.103-107), weekly and recovery and losses reports (pp.109-112), allocation of sugar and final molasses to fields (pp.113-116) and wt. and measurements (pp.117-119). 50 tables are given. JN

623

Beet-sugar technology. [A book]

McGinnis, R. A. (Editor)

2nd edition xxx + 835pp. (1971) [Numerous ref.

En] Fort Collins, Colorado, USA: Beet Sugar

Development Foundation Price \$20.00

This book for sugar beet factory technicians, growers, and professional scientists, consists of over 50 articles on all aspects of beet-sugar manufacture. In addition to a 14pp. glossary of technical terms, a list of ~50 books on beet sugar, and a 10pp. summary of factory equipment and process constants and practices, the following chapters are included: Agriculture, by P. B. Smith (pp. 1-24, 29 ref.); The sugar beet and sucrose formation, by R. Wyse (pp. 25-33, 35 ref.); Chemistry of the beet and processing materials, by R. A. McGinnis (pp. 33-74, 98 ref.); Payment for beets, by R. E. Hallbeck (pp. 75-77); Analysis of sugar content, by R. A. McGinnis (pp. 77-84); Amalgamated automated tare laboratory, by J. R. Johnson & C. H. Brevick (pp. 87-90, 12 ref.); Beet storage, by R. A. McGinnis, D. L. Sunderland, R. H. Cotton & L. P. Orleans (pp. 91-106, 44 ref.); Preliminaries to processing, by A. G. Frost (pp. 107-120); Fundamentals of the process, by R. A. McGinnis (pp. 120-124); Diffusion, by H. O. Ebell & M. Storz (pp. 125-160, 68 ref.); History [of juice purification], by R. A. McGinnis (pp. 161-164); Chemical fundamentals [of juice purification], by Mr. & Mrs. J. Dedek (pp. 165-190, 135 ref.); Technology of juice purification, by R. A. McGinnis (pp. 191-236, 135 ref.); Thickening equipment, by R. H. van Note (pp. 236-248); Water-soluble polymers as settling aids: chemical development, by R. M. Sequiera (pp. 248-252). [Continued in following abstr.] JN

624

Beet-sugar technology. [A book]

McGinnis, R. A. (Editor)

2nd edition xxx + 835pp. (1971) [Numerous ref.

En]

[Continued from preceding abstr.] Use of flocculating agents, by O. V. Bonney & F. G. Eis (pp. 253-257, 69 ref.); Second carbonation, by R. A. McGinnis (pp. 259-268, 42 ref.); Sulphitation (pp. 268-274, 14 ref.); filtration, by R. G. Fee (pp. 274-295, 8 ref.); Juice storage, by G. Rorabaugh & L. P. Orleans (pp. 297-302, 11 ref.); Ion exchange in the beet sugar industry, by J. E. Maudru (pp. 303-305); Resins and resin development, by S. E. Bichsel (pp. 305-323); Operating problems and solutions [of ion exchange], by L. W. Norman (pp. 324-330); Quentin process, by K. W. R. Schoenrock (pp. 330-333); Purification systems related to ion exchange, by L. W. Norman (pp. 333-336, 56 ref.); Activated carbon, by R. S. Joyce (pp. 336-352, 23 ref.); Evaporators and fuel economy, by F. H. Ballou, Jr. (pp. 353-375, 18 ref.); crystallization, by G. W. Cossairt (pp. 377-428); Masseccuite treatment prior to centrifuging, by A. H. Stuhlfreyer (pp. 429-430); The centrifugal station (pp. 431-456, 456 ref.); Granulators, by J. R.

Corsberg (pp. 457-459, 1 ref.); Sugar screening, by C. H. Iverson & R. E. Munroe (pp. 459-464, 3 ref.); Bulk storage and handling, by J. B. Powell (pp. 464-475, 6 ref.); Warehouse operations, by J. R. Corsberg (pp. 475-477); Packaging, by S. L. Force (pp. 477-478); Packages and production, by P. L. Dupes (pp. 478-485); Package weight control, by S. L. Force (pp. 485-487); Trends in packaging, by P. L. Dupes (pp. 487-488, 26 ref.); Special sugar products, by C. E. Purvis & E. T. Winslow, (pp. 489-498, 10 ref.). [Continued in following abstr.] JN

625

Beet-sugar technology. [A book]

McGinnis, R. A. (Editor)

2nd edition xxx + 835pp. (1971) [Numerous ref.

En]

[Continued from preceding abstr.] Liquid sugars, by R. S. Gaddie (pp. 499-507, 10 ref.); Sugar quality by R. A. McGinnis (pp. 509-530, 86 ref.); Lime and carbon dioxide production, by E. M. Hartmann (pp. 531-558, 39 ref.); The Steffen process, by E. M. Hartmann (pp. 559-573, 16 ref.); The barium saccharate process, by W. Newton II, M. G. Auth, H. W. Dahlberg & R. J. Brown (pp. 573-578, 4 ref.); Molasses, by E. H. Hungerford (pp. 579-587, 11 ref.); Dried pulp, by F. F. Coons (pp. 587-597); Spontaneous heating of dried pulp, by W. O. Bernhardt (pp. 597-599, 7 ref.); Recovery of amino acids, by W. Newton II & M. G. Auth (pp. 599-608, 38 ref.); The boiler, by F. H. Ballou, Jr. (pp. 609-618, 9 ref.); The electrical power system, by A. L. Munn, A. J. Daglia (pp. 618-632, 6 ref.); Air pollution, by C. H. Iverson (pp. 633-638, 2 ref.); Liquid waste disposal, by W. O. Weckel (pp. 642-657, 17 ref.); The process control system, by A. J. Daglia (pp. 659-672); Instruments, by G. G. Kunkel (pp. 672-686); Microbiology and plant sanitation, by H. E. Halden (pp. 687-706, 43 ref.); Technical accounting and process control, by R. A. McGinnis, R. E. Hallbeck, J. R. Johnson & S. Moore, Jr. (pp. 707-724, 22 ref.); History, by R. A. McGinnis (pp. 725-741); The beet industry in the twentieth century, by D. C. Carter (pp. 741-743); Tabular history of United States factories, by R. A. McGinnis (pp. 744-757); and Beet sugar production in Canada, by W. W. Blankenbach & F. Dimmock (pp. 757-760). A 40pp. subject index and an 8pp. author index to articles and references are included. JN

626

[Use of mathematics and computers in sugar-beet production.] *Primenenie matematicheskikh metodov i EVM v sveklosakharnom proizvodstve.* [A book] Chernov, Yu. P.; Stepanenko, I. D. 72pp. (1970) [25 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 0.22 rouble

627

[Beet sugar factory equipment.] Oborudovanie svekloskharnykh zavodov. [A book] Azrilevich, M. Ya. 358pp. (1970) [41 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 0.61 rouble

This handbook, intended for training of sugar technologists, consists of an introductory description of sugar manufacturing processes (pp. 3-18) and the following chapters: Sugar beet stores (pp. 19-33); Equipment of sugar beet transporters (pp. 33-49); Sugar beet processing equipment (pp. 50-104); Equipment for juice and syrup purification (pp. 104-23); Filtration equipment (pp. 123-76); Heating, evaporation and boiling equipment (pp. 176-227); Crystallization and centrifuging equipment for massecuite (pp. 228-58); Sugar drying, packaging and storage equipment (pp. 258-78); Bagasse processing equipment (pp. 278-92); Lime separation equipment (pp. 292-310); and General factory equipment (pp. 310-55). SKK

628

10 L 522

[Principles of automation of beet-sugar production processes.] Osnovy avtomatizatsii processov sveklosakharnogo proizvodstva. [A book] Azrilevich, M. Ya.; Baras, Ya. J.; Erlikh, V. M. 424pp. (1968) [Ru] Moscow: Pishchevaya promyshlennost' Price 98 k.

The principles of automation of beet sugar production are given, including application to all stages of handling raw beets, preprocessing, extraction and evaporation of juice, crystallization, refining and packing. Selection and checking of control instruments are described. STI

629

[Merchandizing of starch, sugar and confectioner's goods. 2nd edition.] Tovarovedenie krakhmala, sakhara i konditerskikh tovarov. [Book]

Gryuer, V. S. 248 pp. (1971) [13 ref. Ru] Moscow, USSR, Izdatel'stvo 'Ekonomika' Price 0.80 r

This textbook for students in Faculties of Merchandizing of Commercial Institutions of Higher Learning, consists of the following main chapters: Starch and starch products (pp. 6-36); Sugar, sugar syrups, honey, artificial and new sweetening agents (pp. 37-78); and confectioner's goods (raw materials; physico-chemical properties; packaging, labelling, storage and transport; range of goods; chocolate and cocoa; caramels; sweets; halva; flour confectionery; and quality evaluation) (pp. 81-233). Tables of chemical composition and calorie content are appended. SKK

630

[Sugar industries in capitalist and developing countries.] Sakhar'naya promyshlennost' kapitalisticheskikh i razvivayushchikhsya

stran. [A book]

Shvartshtein, I. V.

201pp. (1970) [36 ref. Ru] Moscow, USSR: Pishchevaya Promyshlennost'. Price 0.63 rouble

Main changes which have taken place in the economics and techniques of sugar production during recent yr in capitalist countries are discussed. Special attention is paid to: problems of raw material supplies; development trends; the present state of sugar production and consumption; sugar quality and present varieties. Problems of world sugar markets are also dealt with. STI

631

[Economics of sugar industry.] Ekonomika sakharnoi promyshlennosti. [A book] Podgaets, Ts. I.

232pp. (1970) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya promyshlennost'. Price 0.86 rouble

Principal problems of sugar industry economics eg. siting of sugar factories, choice of capacity, determination of optimal length of sugar campaign, supplies of raw material and sugar factory management and organization are discussed. Economic problems of sugar production are dealt with in relation to the new planning system adopted in the USSR. Size of sugar factories and world trends towards concn. are discussed and compared with the trends in the USSR, where concn. of the sugar industry proceeds together with larger areas under sugar beet, development of sugar machinery production and road transportation. STI

632

[Sugar commerce, a pocket book.]

Zuckerwirtschaftliches Taschenbuch. [A book]

Janeba, G.; Krenz, E.; Bruhns, G.

16: 323pp. (1969) [De] Berlin-Nikolassee: Dr. Albert Bartens

This small, plastics-bound handbook of commercial data for the sugar ind. is divided into 3 sections: Statistics (pp. 13-108); Trade regulations (pp. 109-163); and Addresses (pp. 164-212). The statistics section covers world production and consumption of various types of sugar and sugar products, imports and exports, balances, and prices. Similar data are given for Europe (including EC and EFTA groups), W. Germany and E. Germany. The trade regulations section deals with international agreements and regulations, world prices, and has separate chapters on the EEC countries and on W. Germany. The addresses are those of official authorities and organizations (international, W. Germany, E. Germany), and of trade associations in W. Germany and in individual European countries (Belgium, Denmark, E. Germany, Finland, France, Greece, UK, Rep. of Ireland, Italy, Yugoslavia, The Netherlands, Austria, Portugal, Sweden, Switzerland, Spain and Turkey); a list of sugar factories in W. Germany is included. A useful feature of this well-produced booklet is that the headings to all tables, graphs etc. are also given in En and Fr. HBr

633

[Financing the sugar industry.] Finansy sakharnoi promyshlennosti. [A book]
Moreinis, Ya. I.
279pp. [Ru] Moscow: Pishchevaya Promyshlennost'
Price 1 r. 16 k.

The significance and methods of financing in a socialist enterprise and in the national economy are discussed. Problems of budgeting and accounts in the sugar industry, state bank loans, financing basic investments and general repairs, the fundamental principles of planning and financing in sugar plants, and planning of profitability are considered. STI

634

Bee and honey patents of the world. [A book]
North, O. S. (Editor)
xii + 300pp. (1970) [Numerous ref. En, de, fr, pl, ja, fl] Arlington, Virginia, USA: Author. Price \$15.00

This book contains a collection of 125 US and other English-language patents, as well as some important non-English patents, on processes and compositions relating to: beekeeping (pp. 1-40); honey processing and packing (pp. 41-140); honey beverages and beverage powders (pp. 141-184); honey butters and spreads (pp. 185-225); other honey foods (pp. 226-276); bee and honey health products and medicines (pp. 277-300). Abstracts of some of the non-English patents are given, and an inventor-assignee index is provided. AL

635

Maple syrup production in Ontario. Production costs, returns and management practices. [A book]
Dillon, W. J. (Canada, Ontario Department of Agriculture & Food, Farm Economics, Co-operatives & Statistics Branch)
iii + 63pp. (1971) [En] Toronto, Ontario, Canada: Author

636

[Manual for confectioners.] Posobie dlya konditera. [Book]
Buteikis, N. G.; Surkova, N. F.
175pp. (1972) [Ru] Moscow, USSR, Izdatel'stvo "Ekonomika". Price 0.30 rouble

Principles of confectionery manufacture organization in communal feeding undertakings are together with descriptions of raw material used and characteristics of finished products. The main chapters of the book deal with: principles of organization and planning of confectionery production; raw materials used; equipment of the confectionery room; flour products manufacturing process; preparation of non fermented doughs; manufacture of doughs with the use of yeast; finishing of confectionery products; national specialities. STI

637

[Equipment for the manufacture of caramels. Oborudovanie dlya proizvodstva karameli. [A book]
Rabinkii, E. M.
132pp. (1971) [9 ref. Ru] Moscow, USSR: Izdatel'stvo "Pishchevaya promyshlennost". Price 18 k.

Modern equipment including continuous toffee processing lines is described. The main chapters deal with: equipment for toffee syrup manufacture; toffee mass boiling machines; toffee mass cooling and processing machines; forming machines; toffee cooling machines; cutting machines; continuous processing lines. Problems of safety of labour are also discussed. STI

638

[Manufacture of confectionery products. Proizvodstvo muchnykh konditerskikh izdelii. [A book]
Tokarev, L. I.
336pp. (1971) [12 ref. Ru] Moscow, USSR: Izdatel'stvo "Pishchevaya promyshlennost". Price 51 k.

This book deals with the raw materials and technology for biscuits, wafers, tarts and cakes production. Main chapters are: raw materials; treatment of raw materials; manufacture of various cakes; manufacture of honey cakes; wafer production; biscuit manufacture; computing the recipes; sanitation; labour safety. STI

639

[Production of sweets and candies.] Proizvodstvo desertnykh konfet. [A book]
Kormakov, S. I.; Kryazhevskaya, L. I.; Nikitina, A. A.
127pp. (1971) [13 ref. Ru]

This paperback book is designed primarily for use as a textbook for technical schools and for the training of technicians, and covers the production of a wide range of sweets with various types of filling, as well as of chocolate containing dried fruits. Packaging and chemical control aspects are also covered. A 31-pp. appendix lists for numerous types of sweets the raw materials required, the DM content, and the amount of material required/kg product. HBr

640

[Equipment for the manufacture of confectionery and toffee.] Oborudovanie dlya proizvodstva konfet i irisa. [A book]
Sol'ts, Ya. B.
95pp. (1970) [12 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.14 rouble

Commonly used modern machines and equipment for manufacture of confectionery

products and toffee are described. The book contains the following chapters: Equipment used for the manufacture of confectionery masses; Moulding equipment; Tempering equipment and machinery; Cutting equipment; Coating equipment; Continuous production lines for the manufacture of confectionery and toffee; Principles of safety of work; and Principles of steam supply in confectionery plants. STI

641

[Basic economics of planning and organization in confectionery manufacture.] Osnovy ekonomiki organizatsii i planirovaniya konditorskogo proizvodstva. [A book]

Vasil'eva, E. V.

237pp. (1970) [16 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.29 rouble

This handbook for students at technical colleges and specialists in the confectionery industry deals with: confectionery manufacture in the system of socialist industry in the USSR; organization of management; principles and methods of planning in the confectionery industry; organization and planning of main and subsidiary production; production plans and capacities of confectionery plants; financing and securing materials supply; organization of labour and wages; profitability and profit planning; financial plan and analysis of economic activities of the confectionery plant. STI

642

[Equipment for the manufacture of halva.] Oborudovanie dlya proizvodstva khalvy. [A book]

Dogov, A. A.; Krasnik, E. L.

85pp. (1970) [19 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya promyshlennost'. Price 0.20 rouble

The booklet discusses the production of halva from sunflower seeds and sesame seeds and equipment and machinery used. Chapters are: Equipment for seed cleaning; Equipment for seed husking; Seed drying and roasting equipment; Milling equipment; Filtering machines; Heating equipment; Mass preparation; Mixing machines; Halva finishing machines; Continuously operating halva production lines; and Waste disposal equipment. STI

643

[Halwa production.] Wyrob chalwy. [A book]

Slomczykowski, J.

138 pp. (1970) [27 ref. Pl] Warsaw, Poland: Wydawnictwo Naukowo-techniczne, Price 11 z.

This handbook for workers in the confectionery industry deals with raw materials used for halwa production, common and modern halwa processing methods, storage of halwa and laboratory control. STI

644

[Manufacture of fruit pastils, milk toffee and halva.] Proizvodstvo marmelado-pastil'nykh izdelii, irisa i khalvy. [A book]

Solomonov, P. F.; Borisova, A. P.

208pp. (1970) [26 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost' Price 0.45 rouble

This manual, intended for personnel of confectionery factories, deals with technology of manufacture of fruit pastils (pp. 5-149); halva (pp. 150-91) and milk toffee (pp. 192-204). SKK

645

[Handbook for the confectioner. Part II.] Spravochnik konditera. Chast' II. [A book]

Ben', G. M.; Grigor'ev, F. B.; Martynov, M. I.

(Editors)

816pp. 2nd edition (1970) [Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost' . Price 2.66 rouble

This book, designed primarily for technicians and engineers in the confectionery industry and as a high school textbook, gives detailed information on the functioning, characteristics, capacity, etc. of machinery and equipment used in the confectionery industry. The book is divided into 11 sections, as follows: General purpose equipment (pp. 5-127); Machinery for caramels (pp. 128-201); Machinery for sweets (pp. 202-60); Machinery for chocolate (pp. 261-333); Machinery for flour confectionery (pp. 334-440); Machinery for tarts and the like (pp. 441-509); Machinery for toffees, halva, dragees and the like (pp. 510-70); Wrapping and packaging machinery (pp. 571-664); Apparatus for process automation (pp. 666-709); Refrigeration equipment (pp. 710-65); and Corrosion of metals and other materials used in confectionery machinery (pp. 766-89); Appendices include a 2-pp. list of Soviet factories producing machinery for the confectionery industry, and a 9-pp- subject index. HBr

646

[Continuous production lines in the confectionery industry.] Potochny linii konditerskoi promyshlennosti. [A book]

Lunin, O. G.

380pp. (1970) [65 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 2.50 roubles

This handbook, intended for planning personnel, technologists and scientific workers in the confectionery industry and for students of higher education establishments, consists of the following chapters: Bases of continuous manufacture in the confectionery industry (pp. 5-64); Machinery and equipment installations for continuous lines in the confectionery industry (pp. 65-146); Classification of transport systems for continuous lines in the confectionery industry (pp. 147-86); Basic components of transport systems (pp. 187-240); and Synchronization in cyclic transport systems of continuous lines in the confectionery industry (pp. 241-373). SKK

647

[Physico-chemical bases of sugar confectionery production.] Fiziko-khimicheskie osnovy proizvodstva sakharnykh konditerskikh izdelii. [A book]

Nikiforova, V. N.; Zubchenko, A. V.

280pp. (1969) [627 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 1.73 rouble

This book, intended for the scientific and technical personnel of confectionery factories and for students of higher education establishments, consists of the following chapters: Properties of raw materials used in sugar confectionery production (pp. 7-43); Aqueous sucrose solutions (pp. 44-60); Effect of heat treatment on fundamental physico-chemical properties of raw materials (pp. 61-93); Crystallization processes (pp. 94-129); Physico-chemical process in sugar confectionery production (pp. 130-99); Physico-chemical and structural and mechanical properties of sugar confectionery mixes (pp. 200-58); and Physico-chemical processes during storage of sugar confectionery (pp. 259-79). SKK

648

The international confectioner. Confectionery - cakes, pastries, desserts and ices. [A book]

Fance, W. J. (Editor)

xvi+742pp. (1968) [En] London: Virtue & Co. Ltd.

This book which is intended for all those interested in patisserie covers every aspect of patisserie and cake-making. Contents include a short history of the development of baking in Europe and of better known British cakes and tea-breads (pp. 1-27), general information (e.g. food regulations, hygiene, apprenticeship and training,

measuring heat and density, conversion tables) (pp. 29-36), bakery technology (aeration, cake-making methods, baking confectionery products, deep-freezing and retardation, foodstuffs in the refrigerator, sugar boiling, plaiting) (pp. 37-56), raw materials (pp. 57-70), cake decoration (pp. 71-120), and basic preparations (pp. 121-94), but the major portion of the book (pp. 195-699) is devoted to detailed recipes for cakes, pastries, desserts and ices. The book contains >160 colour plates, 45 step-by-step photographs and >150 line drawings. Also included are a glossary of British baking terms, a recipe index and a historical and technological index. JA

649

Twenty years of confectionery and chocolate progress. From the Proceedings of the 1947 to 1966 Annual Production Conferences of the Pennsylvania Manufacturing Confectioners' Association. [A book]

Pratt, C. D.; Vadetzsky, E. de; Langwill, K. E.;

McCloskey, K. E.; Schuemann, H. W. (United States of America, Pennsylvania Manufacturing Confectioners' Association) (Editors)

xv+775pp. (1-108) (1970) [Numerous ref. En]

Westport, Connecticut: AVI Publishing Co. Inc.

Price \$15.00 (US) \$16.00 (Foreign)

This book is a collection of some of the papers presented at annual meetings of the Pennsylvania Manufacturing Confectioners' Association 1947-1966. In addition to the 66 papers reproduced in full, the book also contains 259 abstracts of other

papers presented at the meetings. The first part of the book (pp. 1-706) is divided into 21 sections each containing one or more papers. Section headings and titles of papers are:- Candy (general): The science of nutrition in relation to candy (1949 conference), by G. R. Cowgill (pp. 3-12, 2 ref.); Development of candies as space foods (1966), by A. W. Anti, E. E. Anderson & H. A. Dymsha (pp. 13-20, 4 ref.); Caramels: A study of the consistency of caramel (1959), by W. N. Duck (pp. 21-28, 5 ref.); Developments in the manufacture of toffees and caramels (1965), by A. G. Lipscomb (pp. 29-50); Chocolate: Crystallization of cocoa butter and its effect on the properties of chocolate (1949), by N. W. Kempf (pp. 51-56); The choice and use of chocolate coatings (1950), by L. R. Cook (pp. 57-61); Composition of cacao butter bloom (1952), by N. R. Easton & E. S. Moler Jr. (pp. 62-67, 5 ref.); Milk chocolate technology (1954), by J. C. Musser (pp. 68-74, 9 ref.); Enrobing technique (1955), by S. Goldstein (pp. 75-80); A microscopic technique for the examination of fat and sugar in chocolate during conching (1956), by E. Hanssen (pp. 81-88, 6 ref.); Trends and results of the chocolate research in Germany (1957), by R. Heiss (pp. 89-101); A study of the action of sorbitan monostearate in chocolate (1957), by W. N. Duck & R. P. Cross (pp. 102-08, 7 ref.); [Continued in following abstr.] JA

650

Twenty years of confectionery and chocolate progress. From the Proceedings of the 1947 to 1966 Annual Production Conferences of the Pennsylvania Manufacturing Confectioners' Association. [A book]

Pratt, C. D.; Vadetzsky, E. de; Langwill, K. E.;

McCloskey, K. E.; Schuemann, H. W. (United States of America, Pennsylvania Manufacturing Confectioners' Association) (Editors)

xv+775pp. (109-309) (1970) [Numerous ref. En]

Westport, Connecticut: AVI Publishing Co. Inc.

Price \$15.00 (US) \$16.00 (Foreign)

[Continued from preceding abstr.] Particle fineness in chocolate and its measurement (1958), by C. L. Hinton (pp. 109-14, 2 ref.); A study of the viscosity increase due to solid fat formation in tempering chocolate (1958), by W. N. Duck & R. P. Cross (pp. 115-22, 12 ref.); Cacao butter and fat bloom (1960), by S. V. Vaack (pp. 123-55, 49 ref.); Use of viscosity measurements in pipe line calculations for liquid chocolate (1961), by A. Fincke (pp. 156-66, 12 ref.); A dilatometry study of chocolate fat (1961), by W. N. Duck (pp. 167-74, 13 ref.); Studies on the formation of fat bloom and methods of delaying it (1961), by J. Kleinert (pp. 175-210, 34 ref.); Recent technological research projects in the field of the treatment of chocolate (1962), by R. Heiss (pp. 211-22, 39 ref.); The operation of automatic chocolate shell plants (1963), by W. T. Clarke (pp. 223-39, 7 ref.); A method to measure the percent solid seed

crystals in tempered chocolate (1963), by W. N. Duck (pp. 240-51, 13 ref.); The measurement of unstable fat in finished chocolate (1964), by W. N. Duck (pp. 252-59, 6 ref.); Relationship of sorbitan monostearate and polysorbate 60 to bloom resistance in properly tempered chocolate (1965), by J. W. DuRoss & W. H. Knightly (pp. 20-72, 15 ref.); A rapid method for the calculation of Casson flow values τ^* chocolate (1965), by W. N. Duck (pp. 273-82, 3 ref.); Chocolate and cocoa products (1966), by O. Schetty (pp. 283-96, 29 ref.); Cocoa beans: Cocoa beans: quality requirements and methods of assessment [Continued in following abstr.] JA

651

Twenty years of confectionery and chocolate progress. From the Proceedings of the 1947 to 1966 Annual Production Conferences of the Pennsylvania Manufacturing Confectioners' Association. [A book] Pratt, C. D.; Vadetzsky, E. de; Langwill, K. E.; McCloskey, K. E.; Schuemann, H. W. (United States of America, Pennsylvania Manufacturing Confectioners' Association) (Editors) xv+775pp. (310-475) (1970) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co. Inc. Price \$15.00 (US) \$16.00 (Foreign)
[Continued from preceding abstr.]
Personalities of cocoa beans (1963), by L. R. Cook (pp. 310-25, 6 ref.); Some aspects of cocoa bean roasting (1966), by J. Kleinert (pp. 326-61, 22 ref.); Corn syrup: Physical and chemical characteristics of enzyme converted corn syrup (1955), by J. A. Kooreman (pp. 362-68, 4 ref.); Cream centres: Cordial fruit cream centres - controlling liquefaction (1956), by J. A. King (pp. 369-74); Cream centre liquefaction - how and why (1956), by A. Monti (pp. 375-82, 2 ref.); Factors that influence cast cream centre characteristics (1957), by J. A. King (pp. 383-92); Effect of high temperature on the efficiency of invertase (1964), by F. Janssen (pp. 393-400); Emulsifiers: Lecithin in chocolate and confectionery products (1948), by L. R. Cook (pp. 401-09); The use of glycerol monostearate and related emulsifiers in candy (1958), by W. H. Knightly (pp. 410-28, 19 ref.); Fats: Fats, oils, hard butters (1951), by G. F. Becker (pp. 429-40); New development in tempering procedures for edible fats (1956), by M. L. Otto & W. M. Cochran (pp. 441-48); Moisture transmission through fats (1959), by R. O. Feuge (pp. 449-55, 4 ref.); The influence of the cooling apparatus on the microscopical structure and consistency of fats (1960), by E. Hanssen (pp. 456-64, 3 ref.); Fudge: Fudge - ingredients versus process (1953), by J. A. King, V. P. Victor & A. A. Jackson (pp. 465-75); [Continued in following abstr.] JA

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Twenty years of confectionery and chocolate progress. From the Proceedings of the 1947 to 1966 Annual Production Conferences of the Pennsylvania Manufacturing Confectioners' Association. [A book] Pratt, C. D.; Vadetzsky, E. de; Langwill, K. E.;

McCloskey, K. E.; Schuemann, H. W. (United States of America, Pennsylvania Manufacturing Confectioners' Association) (Editors) xv+775pp. (476-610) (1970) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co. Inc. Price \$15.00 (US) \$16.00 (Foreign)

[Continued from preceding abstr.] Fudge (1961), by F. R. De Roeck (pp. 476-77); A study of the gloss and consistency of fudge (1962), by W. N. Duck (pp. 478-84, 6 ref.); Gelatin: The application of gelatin in the confectionery industry (1950), by T. B. Downey (pp. 485-91); Gums and jellies: Starch and its application in gum confections (1950), by R. W. Kerr (pp. 492-96); The uses and advantages of demethoxylated pectin in the confectionery industry (1953), by H. F. Angermeier (pp. 497-502); Pectin jellies - adaptability to textural and environmental variations (1964), by L. C. Gallagher (pp. 503-07); Hard candy: Corn syrup in hard candy (1953), by J. M. Krno (pp. 508-16); Marshmallow: A study of the consistency of marshmallow (1960), by W. N. Duck (pp. 517-24, 6 ref.); Materials handling and engineering: Moulds used in the candy industry (1956), by J. W. Vassos (pp. 525-33); Radiant cooling (1956), by E. H. Morgan (pp. 534-42, 3 ref.); The application of advanced heat transfer equipment to the confectionery industry (1964), by A. R. Gudheim (pp. 543-56, 4 ref.); Aeration in candy technology (1964), by J. W. Mansvelt (pp. 557-77, 13 ref.); Milk products: Enzyme produced flavour from milk fat (1958), by M. G. Farnham, J. H. Nelson & A. R. Kemp (pp. 578-90); The properties of various milk products and their use in different types of candy (1960), by B. H. Webb (pp. 591-97); Packaging: Concerning certain aspects of odour in packaging (1964), by G. R. Maybee (pp. 598-610, 11 ref.); JA

653

Twenty years of confectionery and chocolate progress. From the Proceedings of the 1947 to 1966 Annual Production Conferences of the Pennsylvania Manufacturing Confectioners' Association. [A book] Pratt, C. D.; Vadetzsky, E. de; Langwill, K. E.; McCloskey, K. E.; Schuemann, H. W. (United States of America, Pennsylvania Manufacturing Confectioners' Association) (Editors) xv+775pp. (611-775) (1970) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co. Inc. Price \$15.00 (US) \$16.00 (Foreign)

[Continued from preceding abstr.] Plastics films for candy packaging (1965), by J. E. Ericson (pp. 611-17); Shelf-life and storage: Sorbitol in candy (1953), by S. T. Cross (pp. 618-34); Some aspects of the shelf-life of candies (1958), by C. L. Hinton (pp. 635-46, 5 ref.); Starch: The use of starch in the confectionery industry (1948), by J. M. Krno (pp. 647-55); Moisture equilibrium in confectioners moulding starch (1950) by F. H. Brock (pp. 656-60); The behaviour of the starch molecule and new developments (1963), by K. S. Ronai & R. M. Boettger (pp. 661-69, 4 ref.); Sugars: Invert sugars (1947), by J. A. King (pp. 670-75); Dextrose and its characteristics (1950), by J. M. Krno (pp. 676-83, 9 ref.); Calculations for use with sugar products (1956), by L. Lang (pp. 684-

89); Sweetness and flavouring: Effects of certain physical properties of confectionery products upon their taste (1961), by E. R. Pariser & E. L. Wick (pp. 690-98); Whipping agents: Whipping agents (1948), by G. T. Carlin (pp. 699-706). The second part of the book (pp. 707-64) consists of abstracts, grouped under section headings similar to those used in part one. A subject index is included. JA

654

Candied and glazed fruit. [A book]

Grosso, A. L.

169pp. (1965) [60 ref. En] Buenos Aires:

Refinerias de Maiz SAIC. & London: Food Trade Review Ltd. Price 75s.

655

[Technology of confectionery production.]

Tekhnologiya konditerskogo proizvodstva. [A book]

Zhurvaleva, E. I.; Komarov, S. I.; Tokarev, L. I.;

Rakhmanova, K. G.

400pp. (1968) [Ru] Moscow, Pishchevaya

Promyshlennost. Price 1 r. 3 k.

This book is intended for technical personnel working in the food industry. It describes the basic properties of materials used in confectionery production: sugar, honey, cocoa beans, milk and dairy products, eggs, fats, flour, foams and edible acids, aromatic substances, colouring agents hardeners, auxiliary materials and wrapping materials. Detailed descriptions are given of machines, equipment, apparatus and auxiliary implements, the technological processes of production of chocolate and cocoa powder, jams and fillings for sweets and confectionery. The book also describes the production of toffees and milk toffees, hard

sweets, drops, flour-based confectionery products, biscuits, gingerbread, wafers, cakes and confectionery products with rum flavour. A further section deals with the packing and storage of confectionery products, the consumption of materials and the system of elaborating recipes, and also gives examples of the design and lay out of confectionery production plants. STI

656

[Technological equipment for confectionery plants.] Technologické zařízení cukrarských výrobní. [A book]

Marshallkin, G. A.

543pp. (1969) [Ru] Moscow, Pishchevaya

Promyshlennost. Price 1 r. 33 k.

The book consists of 5 main sections and an introduction. The introduction surveys the development of the confectionery industry and describes continuous production lines for basic confectionery products. The 1st section describes machines and equipment for processing raw materials, semi-finished products and finished goods, e.g. screening equipment, its use and application, machines for the production of

syrops, boiling equipment and baking ovens. The next section describes cooling equipment for confectionery and semi-finished products, whipping equipment and cooling chambers. The book further mentions machines and machinery for mechanical processing of raw materials and intermediate products, e.g. for sifting, kneading, spreading, homogenization, equipment for pressing cocoa butter, cutting equipment for flour-based confectioneries, machines and semi-automatic equipment for forming, especially of chocolate and sweets, aggregates for chocolate icings, filling machines, machines for pressing chocolate figures. The last part of the book describes automatic packing machines, machines for the production of sweets and for the transport of finished confectionery. STI

657

Hyfoama - manual for the production of aerated confections. [A book]

Lenderink and Co. NV

200pp. (Undated) [En] Schiedam, The Netherlands:

Lenderink and Co. NV

This handbook is divided into 2 main sections: technical information, and recipes and formulae. The first section contains the following parts: production techniques (pp. 11-68) for: nougat and nougat-type centres, centres by depositing in starch, centres for hollow chocolate work, centres by extrusion, articles employing cut-and-wrap machines, centres for hard-boiled sweets, marshmallows, angelkisses, assorted chocolates, centres for dragee work, and frappe and discusses the use of pressure beating; trouble shooting (pp. 69-77) which lists methods for effecting simple corrections in the appearance, taste, consistency and texture of confections; technical notes (pp. 79-117) covering the various sugars used in confectionery, auxiliary ingredients operations in confectionery manufacture and effects of storage on confectionery, together with some additional recipes; and tables (pp. 119-28) (bp of sugar solutions, reduction in bp at various altitudes, temp. and density conversion tables, estimation of equilibrium humidity). The 2nd section (pp. 137-200) gives recipes, all employing Hyfoama as the aerating agent, for many types of confection such as nougats, caramels, marshmallows, fudges, fondants and frappe. A subject index is included. JA

658

[Technical analysis in the confectionery industry.] Analiza techniczna w przemyśle cukierniczym. [A book]

Swiechowski, Cz.

410pp. (1968) [Pl] Warsaw, Poland: WPLIS. Price 68 zł

This book, written for laboratory personnel in the confectionery industry, is divided into 3 parts: a general description of the organization of laboratories, and the instruments and materials employed in analytical methods; analytical methods used in laboratories of the confectionery industry; analytical methods for

testing raw materials, and partially manufactured and finished products. Topics covered are: organization of factory and auxiliary laboratories; apparatus and materials employed in analytical methods; laboratory control; determination of different substances in raw materials, auxiliary materials and by-products employed in confectionery production; analytical methods for toffee, fats, fillings, milk, chocolate, cocoa powder; methods of controlling the keeping quality of dough; assessing flour quality; organoleptic assessment; drying methods at different temp.; determination of the quality of gluten, honey, water, sugar and eggs; determination of pH; determination of the suitability of dough; analysis of raw and auxiliary materials employed in production of soft and hard confectionery products, gingerbread, wafers and biscuits. STI

659

[Technical equipment of confectionery factories.] Tekhnologicheskoe oborudovanie konditerskikh fabrik. [A book] Marshalkin, G. A.

544pp. (1968) [41 ref. Ru] Moscow: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 1.35 Roubles

This book, profusely illustrated with line drawings, consists of the following main parts: 'Introduction' (pp. 3-17); 'Apparatus and machinery for heat treatment of raw materials, and semi-manufactured and finished products' (pp. 18-115); 'Machines and units for mechanical treatment of raw materials, and semi-manufactured and finished products' (pp. 116-215); 'Pressing and cutting machines and units' (pp. 216-391); and 'Packaging machines' (pp. 392-540). SKK

660

Silesia Confiserie Manual No. 1. Handbook for the Sugar Confectionery Industry. [A book] Meiners, A.; Joike, H.

528pp. (1969) [Numerous ref. En] Norf, W. Germany: Silesia-Essenzenfabrik Gerhard Hanke KG, Abt. Fachbücherei. Price DM 35.00

This trade handbook is divided into 2 sections. The 1st section contains tables (e.g. temp. conversion table; °Brix, °Baume conversion table; English, metric conversion tables for pressure, wt, vol and length; costs of flavouring for confectionery products; basic formulae for several confectionery products); 240 illustrations, with explanatory notes, of equipment used in the sugar confectionery industry (manufacturers are listed alphabetically); bibliography of trade journals and annual publications (listed by country of origin), and books (listed according to language). The 2nd section contains the following parts: guiding principles for installation of factories for high boiled sweets, low boiled sweets, confectionery articles deposited into starch powder, compressed tablets, dragees, and chewing gum articles; remarks on machines used in sugar confectionery production; theoretical basis of production, which includes details of cooking methods, centre fillings, filling methods, production of low boiled sweets, production of

cream, fondant, jelly and foam articles, chocolate coating, liquorice, and storage, wrapping and packaging; survey of raw materials. Chapters contributed by individual authors are: 'Liquorice', by H. Knoch (pp. 433-44); 'Monoglycerides', by R. Hüttinger (pp. 471-72); 'Acids', by H. Fricke (pp. 477-80); 'The physiological significance of flavourings', by H. Glatzel (pp. 489-99, 31 ref.); 'Quality control by International Regulation', by R. Franck (pp. 499-501); 'International Regulations in the light of German food law', by W. Fedde-Woywode (pp. 501-06); 'Education and training of confectioners in the Federal Republic of Germany (West Germany)', by H. Leder (pp. 513-20). JA

661

[Introduction of new technical equipment in a confectionery factory.] Vnedrenie novoi tekhniki na konditerskoi fabrike imeni N.K. Krupskoi. [A book] Ruzanov, N. M.

107pp. (1968) [Ru] Moscow: Pishchevaya promyshlennost' Price 30 k.

The book describes: a continuous mechanized production line for multi-layer unglazed sweets; a mechanical unit for production of fine fillings; equipment for syrup production; a continuous production line for chocolate mass including a dosing device; a continuous production line for candy types; automatic scales and mechanization of individual operations in the production of liqueur filled sweets. STI

662

[Raw material for confectionery production.] Surowcze cukiernicze. [A book] Warsza, H.

167pp. (1968) [Pl] Warsaw: WPLiS Price 17 zl.

This booklet for workers in the confectionery industry discusses storage of raw material for confectionery production, sugar and sweetening materials, flour, starch, fats, milk and milk products, eggs, fruit, nuts, cocoa, flavourings, gelatin and foaming additives, vitamins, concentrates and extracts, aroma concentrates, citric acid, tartaric acid, lactic acid and colouring matters. STI

663

Up-to-date confectionery. A complete guide to the craft. [A book] Daniel, A. R.

4th edition 540pp. (1965) [En] Croydon, Surrey, England: MacLaren and Sons Ltd. Price 110s

This standard reference book for confectioners has been revised to produce this 4th edition. New recipes and ideas have been included and all recipes are presented in tabulated form. The 37 chapters deal with all aspects of baked confectionery, including modern materials, fermented goods, hot-plate goods, powder-aerated goods, small cakes, sweet and savoury pastries,

chou paste, plain biscuits, shortbreads; gingerbread, sponge goods, cake-making methods including faults, mistakes and recipe balancing, pound and slab cakes, genoese, frangipane goods, fancy tartlets, torten, layer cakes, plain and fancy gateaux, exhibition gateaux, novelty and seasonal gateaux, meringues, Japanese fancies, almond and coconut goods, dessert biscuits, slices, cake decoration and piping, sugar boiling, mincemeat, puddings, bottled fruits, creams, fillings, icings, chocolate work, marzipan modelling, light catering, refrigeration and window displays. The book is extensively illustrated. JA

664

[Technology, technical control and calculations of continuous starch manufacture.] Tekhnologiya, tekhnicheskii kontrol' i uchet krakhsyalopotochnogo proizvodstva. [Book] Burman, M. E.; Bychkov, B. K.; Veksler, B. A.; Kharova, E. Ya.; Ladur, T. A.; Paziruk, K. I.; Sidorova, E. K.; Shtyrkova, E. A. 410pp. (1972) [15 ref. Ru] Moscow, USSR, Pishchevaya Promyshlennost'. Price 1.08 r

The book is intended as a textbook for students at technical high schools specializing in the food industry. It includes the following chapters: Potato starch manufacture (pp. 7-73); Raw corn starch manufacture (pp. 73-137); Manufacture of mixed corn fodder and corn oil (pp. 137-158); Manufacture of dry corn starch (pp. 159-192); Molasses manufacture (pp. 193-250); Glucose manufacture (pp. 251-293); Technical and chemical control in starch products manufacture (pp. 294-378); Technical and chemical calculations in production (pp. 378-406). STI

665

[Utilization of raw materials in starch production.] Kompleksnoe ispolzovanie syrya v proizvodstve krakhsyaloproduktov. [A book] Abagam, D. R.; Veksler, B. A.; Medvedeva, L. N.; Shtyrkova, E. A. 140pp. (1970) [41 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya promyshlennost'. Price 0.46 rouble

The booklet deals with recent work, especially with potato and maize starch production. It contains the following chapters: Potato starch production; Maize starch production; Wheat starch production; and Starch manufacture from sorghum. STI

666

[Technology of starch and starch products.] Tekhnologiya krakhsyala i krakhsyaloproduktov. [A book] Tregubov, N. N.; Bychkov, B. K.; Veksler, B. A.; Kravchenko, S. F.; Smirnov, V. A.

572pp. (1970) [64 ref. Ru] Moscow, USSR: Pishchevaya Promyshlennost'. Price 1.40 roubles

This book deals with theoretical principles and

describes production methods for raw potato starch, maize starch, dry starch, dried feeding stuffs, starch sago, modified starches and dextrin. Processes based on acid and enzymatic hydrolysis of starch are discussed. STI

667

[Starches.] Skrobia. [A book]

Nowotny, F.

305pp. (1969) [Numerous ref. Pl] Warsaw, Poland: WNT. Price 50 zl.

The book gives general information on the structure, physical and chemical properties, biosynthesis, breakdown and methods of identification of starches. The potato processing industry is dealt with in detail, covering starch and modified starch manufacture of various food products from potatoes e.g. potato chips, frozen potatoes, dried potatoes. Production of dextrin, syrups and glucose is also covered. STI

668

The starch industry. [A book]

Knight, J. W.

xiii + 189pp. SBN 08 013044 5 (1969) [12 ref. En] Oxford, UK: Pergamon Press Ltd. Price £1.75

The information presented in this monograph is arranged under the following chapter headings: Starch (pp. 1-13); History of starch and the starch industry in the UK (pp. 14-20); Structure of starch (pp. 21-31); Manufacture of starches including maize, wheat, potato, sago, cassava, rice (pp. 32-69); Conversion products of starch (pregelatinized starches, oxidized derivatives, acid modified starches, cationic starches, cross-linked starches, organic ethers, organic esters, inorganic esters, halogen derivatives, dextrans, glucose syrups and dextrose) (pp. 70-115); Miscellaneous products (adhesives, caramel, hydrolysed vegetable protein, oil) (pp. 116-31); Uses of starch (pp. 132-57) Protein (pp. 158-63); Enzymes (pp. 164-69); and The future (pp. 170-74). 2 appendices are included: Maize starch table, and Methods of testing. VJG

669

Starches and corn syrups. [A book]

Lachmann, A.

275pp. (1970) [En] Park Ridge, New Jersey: Noyes Data Corp. Price \$35

The information in this book is based on US patents in this field since 1960, and the detailed technical information given can be used as a guide to US patent literature in this field. Chapter headings are: The manufacture of starch (pp. 2-35); Treatment of starches (pp. 36-64); Modified starches (pp. 65-131); Pregelatinized starches (pp. 132-48); Acid hydrolysis of starch to sweeteners (pp. 149-60); Starch hydrolysing enzymes (pp. 161-80); Enzymatic starch hydrolysates (pp. 181-224); Starch hydrolysates

produced by acid and enzyme treatments (pp. 225-48); and Starch fractionation (pp. 249-70). Section headings under the main chapter headings are arranged so as to serve as a subject index. Other indexes by company, inventor and patent number are included. JA

670

[Selected methods in starch chemistry. Isolation, characterization and analysis of starch polysaccharides.] *Ausgewählte Methoden der Stärkechemie. Isolierung, Charakterisierung und Analytik von Stärkepolysacchariden.* [A book] Richter, M.; Augustat, S.; Schierbaum, F. 208pp. (1968) [Numerous ref. De] Stuttgart: Wissenschaftliche Verlagsgesellschaft MBH [Inst. für Ernährung, Potsdam-Rehbrücke, E. Germany]

This book includes chapters on the isolation of starch from different plant raw materials; the separation and fractionation of starch polysaccharides; modification, breakdown and derivatives of starch polysaccharides; determination of contaminants and other materials in starch; quantitative determination of starch polysaccharides; detection and determination of saccharides in starch products; methods of determining the characteristics of starch grains; methods of characterizing the process and final state of starch swelling; characterization of the degree of breakdown of starch polysaccharides; molecular size and molecular size distribution of starch polysaccharides; determination of amylose in the presence of amylopectin; chromatographic estimation of starch polysaccharides. Also included is a compilation of important monographs and reviews in this field. Comprehensive bibliographies are provided with the individual chapters. EJM

671

Starch and its derivatives. [8 book]

Radley, J. A.

viii + 558pp. (1968) [Numerous ref. En] London: Chapman & Hall Ltd. Price 140s

This 4th edition of a book last published in 1953 constitutes an up-to-date review of starch chemistry and technology, including sections on the structure and reactions of starch, and on amylases and their action on starch. Chapter headings include 'General survey of starch chemistry to 1950' (pp. 3-65); 'Biological synthesis of starch' by D. J. Manners (pp. 66-90); 'Chemical evidence for the structure of starch' by J. M. Williams (pp. 91-138); 'Structure of the starch grain' by C. Sterling (pp. 139-67); 'Swelling and gelation of starch', (pp. 168-93), and 'Starch retrogradation' (pp. 194-202) by R. Collison; 'Reaction of starch with I_2 ' by J. Hollo and J. Szejtli (pp. 203-46); 'Waxy cereals and red I_2 starches' by R. M. Hixon and B. Brimhall (pp. 247-81); 'Dextrins and dextrinization' by G. V. Caesar (pp. 282-89); 'Schardinger dextrins' (pp. 290-305); 'Oxidation of starch' (pp. 306-53); 'Starch esters and ethers'. 354-419); ' α -Amylases' (pp. 430-

76) and ' β -Amylases' (pp. 477-97) by J. F. Robyt and W. J. Whelan; 'Amyloglucosidase' by I. D. Fleming (pp. 498-508); 'Pullulanase' by J. C. Price (pp. 509-28). An excellent author index to references and a subject index are given. JN

CEREALS

672

Modern cereal chemistry. [A book]

Kent-Jones, D. W.; Amos, A. J.

6th edition 730 pp. (1968) [Numerous ref. En] London: Food Trade Press Ltd. Price 190s [The Lab., Dudden Hill Lane, London, N.W.10, England]

The 6th edition of this long established textbook, primarily intended to be of practical use to cereal chemists, millers and bakers, is also of value as a working guide to analytical procedure for all food scientists and technologists. The book discusses cereals as raw materials, covering their cultivation, harvesting, testing and processing, and reviews in depth the science and technology of the industrial uses to which the processed products are put. Chapters on pest infestation and microbiology deal with the spoilage problems of raw material and finished products. The nutritive and dietary value of cereals in animal and human nutrition are discussed in detail. The chapters on analysis give full details of the recommended methods, covering the traditional routine cereal lab. tests and determinations also likely to be used in other food lab. e.g. assays of vitamins and amino acids. The text is plentifully supplied with illustrative statistics and analytical data. JA

673

Cereal science. [A book]

Matz, S. A.

vii + 241pp. (1969) [Numerous ref. En] Westport Connecticut: AVI Publishing Co., Inc. Price \$13.00 (US) \$14.00 (Foreign) [R. A. Johnston Co., Milwaukee, Wisconsin, USA]

This comprehensive review of cereal literature is comprised of 8 chapters: 'Wheat' by J. A. Shellenberger (pp. 1-38); 'Corn' by S. A. Matz (pp. 39-77); 'Oats' by S. A. Matz (pp. 78-96); 'Barley' by A. D. Dickson (pp. 97-117); 'Rye' by H. L. Shands (pp. 118-49); 'Sorghum' by N. W. Kramer and S. A. Matz (pp. 150-71); 'Rice' by H. M. Beachell and S. A. Matz (172-223); and 'Millet, wild rice, adlay, and rice grass' by S. A. Matz (pp. 224-36). Production and trade data, cultural practices, composition, nutritional aspects, quality criteria and historical considerations are covered. >50 tables, ~50 illustrations and 500 bibliographical entries are included. Although primarily of interest to cereal chemists the book will also be useful to bakery technologists and engineers, food technologists, agronomists and other agricultural scientists, nutritionists, biochemists and home economists. AB

674

Cereal technology. [A book]

Matz, S. A.

vii + 388pp. ISBN 0 87055 071 3 (1970) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc. Price \$21.25 (US) \$22.25 (Foreign) [Res. and Development, Ovaltine Food Products, Villa Park, Illinois, USA]

This book is based on the technology section of 'The chemistry and technology of cereals as food and feed' (now out of print) and in combination with 'Cereal science' [see FSTA (1969) 1 10M684] covers the same subjects as the earlier book. The chapters have been completely revised and rewritten and many new tables and illustrations have been added. Chapters are: Milling, by R. A. Larsen (pp. 1-42, 52 ref.); Baking, by S. A. Matz (pp. 43-90, 12 ref.); Feed manufacture, by B. W. Smith (pp. 91-128, 13 ref.); Malting, by P. R. Witt Jr. (pp. 129-72, 27 ref.); Brewing, by D. W. Ohlmeyer & S. A. Matz (pp. 173-220, 73 ref.); Manufacture of breakfast cereals, by S. A. Matz (pp. 221-45, 14 ref.); Macaroni products, by C. M. Hoskins (pp. 246-99, 19 ref.); Starch and oil production from cereals, by S. A. Matz (pp. 300-37, 51 ref.); and Rice processing, by E. B. Kester & S. A. Matz (pp. 338-81, numerous ref.). A subject index is included. JA

675

[Cereal chemistry and technology.] Cereální chemie a technologie. [A book]

Hampl, J.

400pp. (1970) [Numerous ref. Cs] Prague, Czechoslovakia: SNTL. Price 32 kcs.

The main chapters deal with: cereals in the world economy, Czechoslovak milling and bakery industries, cereals as industrial raw material, cereal storage, treatment of cereals before milling, and milling technology. STI

676

Protein-enriched cereal foods for world needs. [A book]

Milner, M. (Editor)

x + 343pp. (288-343) (1969) [Numerous ref. En] St. Paul, Minnesota: American Association of Cereal Chemists

[See preceding abstr.] Protein-rich cereal foods in Peru, by A. Bacigalupo (pp. 288-304, 22 ref.); The development of "Laubina"-infant food mixtures for the Middle East, by J. W. Cowan & P. L. Pellett (pp. 305-14, 30 ref.); Planning the introduction of low-cost protein-enriched cereal foods in Africa and the developing countries, by T. L. V. Blair (pp. 316-19); Incaparina in Central America, by R. L. Shaw (pp. 320-33, 11 ref.); Experiences in marketing a supplementary food mixture for children in Ethiopia, by B. Wickstrom (pp. 334-40); and Incaparina in Colombia, by A. Dimino (pp. 341-43). VJG

677

The farinograph handbook. [Book]

Locken, L.; Loska, S.; Shuey, W. (USA, American Association of Cereal Chemists) (Editors)
vii + 71pp. (1972) [many ref. En] St. Paul, Minnesota, USA, American Association of Cereal Chemists, Inc. Price \$10.00 (AACC members), \$15.00 (non-members)

This revised and expanded edition of the farinograph handbook (first edition published in 1960) includes the following chapters: The farinograph (pp. 1-11); Theoretical aspects of the farinograph (pp. 12-19, 7 ref.); Types of farinograph curves (pp. 20-32); Factors influencing farinograms (pp. 33-44, 2 ref.); Interpretation of the farinogram (pp. 45-49, 3 ref.); Techniques and uses of the farinograph (pp. 50-52, 3 ref.); Dough development and the farinograph (pp. 53-57, 5 ref.); and Precautions (pp. 58-59). A bibliography of >1000 selected references is given, together with 3 appendices covering the American Association of Cereal Chemists Physical Testing Methods Committee Farinograph Collaborative Study, Farinograph procedures of the International Association of Cereal Chemistry and the Royal Australian Chemical Institute, and a broad classification of references. Author and subject indexes are given. AJDW

678

[Calculations in the cereal industry.]**Berechnungen in der Getreidewirtschaft.** [A book]

Ritter, H.

135pp. (1968) [De] Leipzig: VEB Fachbuchverlag. Price DM 6.50

A number of questions in the field of power machines, belt transmissions, conveyors, storage and purification of cereal grains, comminution, sifting, general and chemical properties of cereals and feeds, dosage of components, extraction rates, power requirements and power costs of mills are given. In each paragraph, examples are presented for methods of solving problems emerging from these topics. IF

679

Cereals in the United Kingdom. Production, marketing and utilisation. [A book]

Britton, D. K.

xvi + 835pp. (1969) [Numerous ref. En] Oxford, England: Pergamon Press Price 160s [Dept. Agric. Economics, Univ., Nottingham, England]

This survey, commissioned by the Home-Grown Cereals Authority, covers all aspects of the cereals market in the UK and is the 1st comprehensive work on the subject for 40 yr. The book is divided into the following 9 parts, most parts containing several chapters: 'Introduction' (pp. 1-15); 'The structure, trends and economics of cereals production' (pp. 17-162); 'The role of the merchant' (pp. 163-327); 'The importing and exporting of grain' (pp. 329-65); 'Utilization of grain in the UK' (pp. 367-515); 'The world grain situation' (pp. 517-608); 'Price behaviour in the UK cereals market' (pp. 609-26);

'UK policy for cereals' (pp. 627-74); 'Summary and conclusions' (pp. 675-94). Appendices include: 'Factors affecting the geographical distribution of cereal acreages and cereal yields in the UK'; 'Survey of farmers: description of methodology'; 'The future demand and supply position for cereals'; 'The economic implications of a change in the basis of the wheat subsidy from tonnage to acreage'; 'Details of storage cost estimates'. JA

680

[Grain.] Zerno. [A book]w
Kozmina, N. P.
367pp. (1969) [117 ref. Ru] Moscow, USSR: Kolos.
Price 1 r 12 k

This monograph is intended for plant breeders, research workers and technical personnel employed in the food industry. Chapters are: Importance of grain in the national economy; Structure and properties of grain; Physical properties of grain; Principles of standardization of grain quality; Fundamentals of grain biochemistry; Physiology of grain; Storage; Botanical characteristics of wheat and methods of evaluation; Types of wheat and their technological properties; Chemical properties of standard varieties of rye, oats, maize, barley, millet, rice, sorghum and tropical grain varieties; and Utilization of grain in the food industry. STI

681

[Grain proteins.] Bialka w technologii zboz. [A book]
Jankiewicz, M.
141 pp. (1968) [Pl] Warsaw, Poland: WPLIS.
Price 22 zl

The book deals with the physico-chemical characteristics of grain proteins. It describes the molecular structure of proteins and fractionation, by various methods, of albumins, globulins, prolamins and glutelins. Changes occurring in grain proteins during processing are dealt with and methods of isolating proteins from grain described. STI

682

[Enzymes in grain. Properties, analysis, significance.] Getreideenzyme. Eigenschaften, Analytik, Bedeutung. [A book]
Rohrlich, M.
135pp. (1969) [Numerous ref. De] Berlin, W. Germany: Paul Parey. Price DM 38
[Bundesforschungsanstalt für Getreideverarbeitung, Berlin, Germany]

This well set-out book covers the subject under the following chapter headings: General introduction (enzyme properties, kinetics, nomenclature, effectors) (pp. 9-15); Properties of grain enzymes and their distribution in the grain (pp. 16-57); Enzymes in ripening and germinating grain enzymes and their distribution in the grain (73-85); Enzymes of yeast-raised and sour doughs

(pp. 85-89); and Technical importance of grain enzymes (pp. 90-121). A 12-pp. list of ref. and a 3-pp. subject index appended. HBr

683

[Handbook on grain and grain products quality.] Spravochnik po kachestvu zerna i produktov ego pererabotki. [A book]
Maskhov, B. M.; Tevosyan, V. T.
352pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo Kolos. Price 2.52 roubles

The book contains the following chapters: Reception of grain; Oilseeds and grass seeds; Principal measures necessary to certify the storage quality of grain; Storage of seed grain; Flour; Grains; Their storage and quality; Feeding stuffs; Laboratory work; and Rules and regulations governing grain and grain products. STI

684

[Design of factories for storing and processing grain.] Proektirovanie predpriyatii po khraneniyu i pererabotke zerna. [A book]
Borokhovskii, L. A.
2nd edition 384pp. (1971) [28 ref. Ru] Moscow, USSR: Izdatel'stvo Kolos. Price 0.96 rouble

This book, approved by the Min. of State Purchases of the RSFSR as a textbook for technical colleges, is divided into 7 sections: General problems of design (pp. 5-51); Designing granaries (pp. 52-98); Designing grain and flour mills (pp. 99-231); Designing fodder-producing factories (pp. 232-262); Air supplies, pneumatic transport, heating and power in factories storing and processing grain (pp. 263-300); Design of buildings in factories storing and processing grain (pp. 301-335); and Working on diploma projects (pp. 336-371). HBr

685

[Organization of the production process at grain-processing plants.] Organizatsiya proizvodstvennogo protsesssa na khlebpriemnykh predpriyatiyakh. [A book]
Gudilin, A. V.; Klimovskii, A. D.; Aktivis, S. I.
103pp. (1971) [18 ref. Ru] Moscow, USSR: Izdatel'stvo Kolos. Price 0.28 rouble

This monograph consists of the following main chapters: Organization of grain reception and calculation of equipment (pp. 5-46); Improvement of techniques of reception and post-harvest treatment of grain (pp. 47-77); and Organization of labour in grain drying and cleaning (pp. 78-100). SKK

686

[Technology of grain processing.] Technologia przetworstwa zbozowego. [A book]
Smarzyński, E.; Woroch, S.; Zwolinski, M.
443pp. (1969) [Pl] Warsaw, Poland: Państwowe

Wydawnictwa Szkolnictwa Zawodowego. Price 33 zł.

The book describes all technological operations applied in grain processing. The 1st part deals with grain storage, treatment and conditioning, milling and grading of milled products. The 2nd part covers principles of milling and milling procedures in detail and final operations before the milled products are distributed to consumers. The 2nd-3rd part contains information on production of various types of flour and macaroni products. STI

687

[Technology of cereal and edible legume processing.] Zarys technologii zboż i strączkowych jadalnych. [A book]

Jankowski, S.

302pp. (1969) [Pl] Warsaw, Poland: PWN. Price 30. zł.

The book covers manufacture of bread, fancy bakery products, macaroni products, precooked cereals, other cereal products, precooked and instant legume products and feeding stuffs, and organization of production control in grain stores, mills and bakeries. STI

688

[Commodity studies of foods. Introduction. Grain and flour products.] Товароведение

продовольственных товаров. Введение. Зерно-мучные товары. [A book]

Rukosuev, A. N.

3rd edition 464pp. (1969) [81 ref. Ru] Moscow, USSR: Izdatel'stvo 'Ekonomika'. Price 1.04 Roubles.

This illustrated handbook, intended for students of economics faculties, consists of the following chapters: Scope of food science and technology (pp. 3-16); Chemical composition, physical properties and nutritive value of foods (pp. 17-112); Assessment of properties and quality of foods (pp. 113-31); Principles of storage and preservation of foods (pp. 132-70); Classification and standardization of foods (pp. 171-79); Grain (pp. 185-265); Groats and groat products (pp. 266-312); Flour (pp. 313-80); and Flour products (pp. 381-450). SKK

689

[Introduction to grain production policy.]

Wstęp do polityki zbożowej. [A book]

Misiuna, W.

262pp. (1969) [Pl] Warsaw, Poland: Ksiarka i Wiedza. Price 30 zł

The subject is discussed under the following aspects: world production and consumption of grain up to 1965; dynamics of production and changes, structure, and main trends in grain consumption; world grain markets; forecast of production and consumption to 1985; trends in grain production and consumption in Poland; factors affecting increased grain consumption in Poland in 1950-1965; solution to problem of correct balancing of Polish grain production and requirements; and forecast of agricultural production in Poland to 1985. STI

690

[Agricultural practice and grain quality.]

Agrotekhnika i kachestvo zerna. [A book]

Kodanov, I. M.

232pp. (1970) [170 ref. Ru] Moscow, USSR:

Izdatel'stvo Kolos'. Price 0.49 rouble

This handbook consists of the following chapters: Quality requirements for wheat and malting barley (pp. 7-33); Effect of climatic conditions on chemical composition of grain (pp. 34-45); Effect of soil fertility and preceding crop on quality (pp. 46-61); Effect of fertilizers on protein content and technological quality of grain (pp. 62-124); Seed grain and sowing (pp. 125-58); Effects of damage by pests and disease on grain quality (pp. 159-61); Effect of irrigation on grain quality (pp. 162-71); and Changes in chemical composition of grain during ripening and harvesting (pp. 172-217).

691

Grain crops. A review of production, trade, consumption and prices relating to wheat, wheat flour, maize, barley, oats, rye and rice. [A book]

Commonwealth Secretariat

v+233pp. (1969) [En] London: Commonwealth Secretariat. Price 40s.

The aim of this annual review is to present up-to-date summaries of production, international trade and consumption for grain crops, special reference being made to the part played by Commonwealth countries. This edition includes figures covering the yr up to 1966-67, with some data for 1967-68. Sections are: 'General review' (pp. 1-28); 'Wheat and wheat flour' (pp. 29-63); 'Maize' (pp. 65-87); 'Barley' (pp. 88-108); 'Oats' (pp. 109-21); 'Rye' (pp. 122-34) and 'Rice' (pp. 135-57). Appendices included are: 'International policy' (pp. 158-63); 'National policies affecting grain in certain countries' (pp. 164-225) and 'Duties and import restrictions on grain in certain countries' (pp. 226-33). JA

692

Food grain marketing in India. Private performance and public policy. [A book]

Lele, U. J.

xviii+264pp. ISBN 0 8014 0618 8 (1971) [Numerous ref. En] Ithaca, New York, USA: Cornell Univ. Press. Price \$12.50 (£5.95 in UK only)

This book is based on statistical information from a large number of markets and on extensive field research. Although the book concentrates on India's marketing system, the methodology can be applied to low-income countries in general. Food grains covered are rice, wheat and jowar. Among the topics considered are the extent and nature of imperfections in the marketing system and the capacity of the existing system to meet expanded demands. Chapters are: Introduction (pp. 1-29); Geographical setting and market structure (pp. 30-62); Competitiveness of markets: a hypothesis (pp. 63-83); Market integration: a case of regional efficiency (pp. 84-117); Cereal storage and seasonality of cereal prices (pp. 118-178); The

rice-milling industry (pp. 179-213); and Performance and policies (pp. 214-224). 2 appendices are: Official policy on food grain prices and marketing (pp. 225-237); and Sources and nature of data (pp. 238-252). A glossary of terms used and an 8pp. subject index are included. JA

693

The country grain elevator industry in Ontario. 1. A general description. [A book] Sorflaten, A. G.
42pp. (Undated) [6 ref. En] Toronto, Canada: Ontario Dept. Agric. and Food

This 1st report of a 2-part study summarizes and assesses the adequacy of facilities for handling grain in Ontario country elevators. Data were obtained in 1966 by visits to 300 plants, interviews and questionnaires. Total handling and storage capacity was 14.4 million bushels. 145 elevators had capacities of <50 000 bushels, 37 from 50 000-100 000 and 9 >250 000. A considerable proportion of firms with capacities of <50 000 bushels did not maintain grain-drying facilities. JN

694

[Preservation of moist grain.] Konservatsiya vlazhnogo zerna. [A book] Aniskin, V. I.
288pp. (1968) [316 ref. Ru] Moscow, USSR: Izdatel'stvo 'Kolos'

This book, under the editorship of N. N. Ul'rikh, is based on data obtained from non-Soviet sources. The work is divided into 6 chapters, as follows: 'Causes of spoilage and conditions of storage of freshly harvested grain' (pp. 3-8); 'Properties of grain as a product for storage and post-harvest processing' (pp. 9-33); 'Engineering data on air-circulation equipment' (pp. 34-45); 'Drying of seed grain' (pp. 46-113); 'Storage of moist grain' (pp. 114-51); and 'Air-tight storage of moist grain' (pp. 152-235). An appendix, with its own literature ref., covers types of equipment for drying granular materials (pp. 236-83). HBr

695

Grain storage. The role of fungi in quality loss. [A book] Christensen, C. M.; Kaufmann, H. H.
vii + 153pp. (1969) [111 ref. En] Minneapolis: University of Minnesota Press. Price 63s.
[Dept. of Plant Pathology, Univ., Minneapolis, Minnesota, USA]

This useful book presents information, in non-technical language, about the causes of and methods of preventing deterioration of stored grains and seeds. Emphasis is placed on fungi but information concerning insects, mites and rodents is also included. The book will be of special value to grain merchants and processors, grain inspectors, and agronomists and economists

concerned with crop production. Chapters are: 'The problem of losses in stored grains' (pp. 3-16); 'Characteristics of field and storage fungi' (pp. 17-35); 'Measurement of moisture content' (pp. 36-49); 'Heating and respiration' (pp. 50-64); 'Germinability, discoloration and fat acidity values' (pp. 65-75); 'Mycotoxins and grain quality' (pp. 76-93); 'Evaluation of condition and storability' (pp. 94-107); 'Drying, aeration and refrigeration' (pp. 108-22); 'Insects, mites and rodents' (pp. 123-40). JA

696

Storage of grain. Volumes 1, 2 and 3. [A book] Trisvyatskii, L. A.
839pp. (1969) [86 ref. En] Boston Spa, Yorkshire, England: National Lending Library for Science and Technology. Price 75s

This is a translation in 3 volumes by D. M. Keane of the Russian book 'Khranenie zerna'. The following chapters are included: 'Problems of storage of grain and grain products' (pp. 12-29); 'History of the storage of grain products' (pp. 30-85); 'Condition of grain received for storage' (pp. 86-105); 'Physical properties of grain and grain products' (pp. 106-81); 'Physiological processes occurring in grain and seeds during storage' (pp. 182-244); 'The importance of micro-organisms in the storage of bulk grain' (pp. 245-339); 'Pests in grain stocks' (pp. 340-465); 'Spontaneous heating and caking of bulk grain during storage' (pp. 466-532); 'Processes occurring in flour and semolina during storage' (pp. 533-76); 'Procedures and methods used for the storage of bulk grain' (pp. 577-686); 'Technological principles for organizing the reception, disposal and storage of grain products' (pp. 687-727); 'Characteristics of the storage of stocks of seed' (pp. 728-39); 'Measures of combatting cereal pests' (pp. 740-825). JA

697

[Methods of controlling losses during grain storage.] Sistema borby s poteryami zerna pri khranении. [A book] Chernyshev, P. K.
250pp. (1969) [Ru] Alma-Ata, USSR: Kainar
Price 86 k

This book is intended mainly for workers in grain stores, agronomists, laboratory control technicians and other personnel employed in the cereal industry. Chapters are: Harmful insects and mites in stores; Description and classification of pests; Control of pests in stores; Preparation of stores for grain intake; Structural specifications for silos; Repairs, cleaning and painting surfaces with insecticides; Disinfestation; Fumigation of stores; Removal of infestation from wrappings, equipment, and spaces; Pest control after grain storage; Spacing of grain; Drying, ventilation and control of stored grain; Checking temp. and humidity in stores; Pest control during the winter; Cooling the grain; Prophylactic measures; and Equipment for organization of pest control. STJ

698

[Organization and planning of production at grain storing and processing plants.] Organizatsiya i planirovanie proizvodstva na predpriyatiyakh Donskov, V. E.; Filippov, A. N.; Voronin, V. G.; khraneniya i pererabotki zerna. [A book] Gavrichenkov, D. N.; Zhigalov, A. N. 463pp. (1969) [Ru] Moscow, USSR; Izdatel'stvo 'Kolos' Price 1.8 rouble

This book has been issued by the Ministry of Higher and Middle Specialist Education of the RSFSR as a textbook for use in colleges with food industry departments. The 1st part of the book (pp. 3-322) covers organizational aspects of management, production, control and supervision, wages, ancillary operations and bookkeeping. The 2nd part (pp. 323-459) relates specific organizational and production aspects to individual types of grain storage and processing plant (grain reception, flour milling, groats milling, combined plants, and hybrid and pure maize strain processing). HBr

699

Meal and grain sampling.

Wheaton, B. M.
Journal of the American Oil Chemists' Society 48 (1) 34A (1971) [En] [Carter Day Co., Minneapolis, Minnesota 55418, USA]

A short history of grain sampling is given and the recent US Grain Standards Act, per USDA publication of 1968, is reviewed briefly. Inspection technique depends on the type of sample being used: official sample, type sample or warehouseman's sample. Terms, such as permissive inspection and exception, are explained. Mechanical grain and meal sampling methods and the equipment used are discussed. A close look is given to their practical application and the mathematics of operation. Facts that point to the future of sampling are given. AS

700

[Flow meters for grain and bulk materials.] Raskhodometry dlya zerna i sypuchikh materialov. [A book]

Lutkin, N. I.
184pp. (1969) [28 ref. Ru] Moscow, USSR: Izdatel'stvo 'Kolos'. Price 0.47 rouble

This book, designed for designers and technicians of automatic control equipment and systems for use in granaries and the like, discusses the theory, operating principles and basic characteristics of instruments and meters for measuring bulk flow, particularly of grain and grain products. Chapters are: Basic flow characteristics of bulk materials (pp. 5-18); Band- and worm-type meters (pp. 19-43); Pan-type meters (pp. 44-106); Centrifugal meters (pp. 107-65); Vane- and screw-type meters (pp. 166-72); and Meters using measurement of geometrical and other flow parameters (pp. 173-80). The bibliography contains 28 ref. (between 1949 and 1964). HBr

701

[Safety measures in grain storage and processing plants.] Tekhnika bezopasnosti na predpriyatiyakh po khraneniuyu i pererabotke zerna. [A book] Skverchak, D. A.; Ponomarev, V. A. 376pp. (1970) [Ru] Moscow, USSR: Kolos. Price 1.11 rouble

This practical guide for specialists engaged in the milling industry, bakeries, grain storage and feeding-stuff production deals with principles of legislative measures concerning labour, necessary organizational measures, and occupational diseases and injuries. Working conditions are discussed. Technical measures for controlling injuries are given. Principles of fire precaution are dealt with. STI

702

[Methods of designing grain stores.] Tekhnologicheskoe proektirovanie zernokhranilishch. [A book] Kreimerman, G. I. 223pp. (1970) [41 ref. Ru] Moscow, USSR: Izdatel'stvo Kolos Price 0.86 rouble

The book deals with the problems of designing grain stores, waste processing plants, continuous plants for grain treatment, and processing of edible and feed maize. Choice of equipment for grain stores and silos is discussed. STI

703

[Principles of erecting, using and repairing equipment in grain storage and processing plants.] Osnovy montazha, ekspluatatsii i remonta tekhnologicheskogo oborudovaniya predpriyatii po khraneniuyu i pererabotke zerna. [A book] Kotlyar, L. I. 247pp. (1969) [Numerous ref. Ru] Moscow, USSR: Izdatel'stvo Kolos. Price 0.96 rouble

Principles of planning and financing installation of equipment and repairs are discussed. The 3 main parts of the book deal with: installation of equipment; operation and repair of equipment; and organization and management of installation and repairs. STI

704

[Grain ventilation.] Ventilirovanie zerna. [A book] Mel'nik, B. E.

184pp. (1970) [23 ref. Ru] Moscow, USSR: Izdatel'stvo 'Kolos'. Price 0.66 rouble

This book consists of the following main chapters: Grain storage under forced ventilation (pp. 7-16); Ventilation of heaped grain with air at ambient temp. and heated air (pp. 17-56); Stationary ventilating plants (pp. 57-86); Transportable ventilating plants (pp. 87-91); PVU-1 mobile single-tube ventilating installations (pp. 92-116); Installations for grain

ventilation in elevator silos (pp. 117-126); New installations for grain ventilation in stores and on the ground (pp. 127-142); Ventilators and heated air ventilation assemblies for grain ventilation (pp. 143-164); Aerodynamic calculation and testing of installations for bulked grain ventilation (pp. 165-172); and Operation reports for ventilating installations and expenditure assessment (pp. 173-179). SKK

705

Grain storage: part of a system. [Book]

Sinha, R. N.; Muir, W. E. (Editors)
xiii + 481pp. ISBN 0 87055 123 X (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$23.50 [Res. Sta., Dept. of Agric., Ottawa, Canada]

This book, based on an international symposium held at the Department of Agricultural Engineering, University of Manitoba, Winnipeg on June 6-9, 1971, consists of reviews of the current state of knowledge in the following subjects: Problems of controlling quality in grain, by J. A. Anderson (pp. 1-14); Interrelations of physical, chemical, and biological variables in the determination of stored grains, by R. N. Sinha (pp. 15-47, 146 ref.); Temperature and moisture in grain storages, by W. E. Muir (pp. 49-70, 66 ref.); Fungi and other organisms associated with stored grain, by H. A. H. Wallace (pp. 71-98, 133 ref.); Infestation and control of pests of stored grain in international trade, by J. A. Freeman (pp. 99-136, 82 ref.); Chemical control of stored grain insects and mites, by E. J. Bond (pp. 137-180, 162 ref.); Rodents in stored grain, by W. W. Dykstra (pp. 181-188, 9 ref.); Heated-air grain drying, by G. H. Foster (pp. 189-208, 25 ref.); New techniques in grain conditioning, by G. C. Shove, (pp. 209-228, 29 ref.); Storage and drying of oilseeds, by E. B. Moysey (pp. 229-250, 54 ref.); Bulk storage of flour, by C. J. Lynde (pp. 251-270, 2 ref.); Design of farm grain storages, by B. R. Stewart & M. G. Britton (pp. 271-288, 24 ref.); Design of country and terminal elevators, by G. S. Halter (pp. 289-312, 6 ref.); Some recent aspects of grain storage technology, by M. B. Hyde & N. J. Burrell (pp. 313-342, 96 ref.); [Continued in following abstr.] JN

706

Grain storage: part of a system. [Book]

Sinha, R. N.; Muir, W. E. (Editors)
xiii + 481pp. ISBN 0 87055 123 X (1973) [many ref. En]

[Continued from preceeding abstr.] Mycotoxins in stored grain, feeds, and other cereal products, by P. M. Scott (pp. 343-366, 151 ref.); Health hazards of grain storage, by C. A. R. Dennis (pp. 367-388, 43 ref.); What we need in international farm policy, by A. M. Runciman (pp. 389-398, 5 ref.); Optimum grain inventories, by G. R. Winter & M. Iga (pp. 399-436); Elevator system and the changing needs of grain companies, by J. T. Tryon (pp. 437-444, 3

ref.); and Grain transportation and storage in Canada: some policy issues and recent developments, by E. W. Tyrchniewicz & O. P. Tangi (pp. 445-462, 24 ref.); A 19-pp. subject index is included. JN

707

[Grain silos and stores.] Elevatory i sklady. [A book]

Platonov, P. N.; Lebedinskii, V. G.; Fasman, V. B.
402pp. 2nd ed. (1971) [50 ref. Ru] Moscow, USSR: Izdatel'stvo Kolos. Price 1.30 roubles

708

[Study of the effect of pressure on the germination of barleys and on the quality of the malts.]

Hyben, D.; Droogenbroeck, L. van
Proceedings. European Brewing Convention 12: 107-19 (1969, publ. 1970) [4 ref. Fr, en, de] [Lab. de Res. et de Controle de Qualite des Brasseries Artois, Louvain, Belgium]
See ISTA (1970) 2 1146.

709

Barley varieties - EBC. [A book]

Aufhammer, G.; Bergal, Hagberg, A.;
Horne, F. R.; Veldhuizen, H. van
xiv + 156pp. (1968) [En, Fr, De.] Amsterdam, London, New York: Elsevier Publishing Co. [European Brewery Convention]

This 3rd revised and enlarged edition, prepared under the auspices of the Barley Committee of the European Brewery Convention, gives detailed descriptions in English, French and German, of some of the most important varieties of malting barley. Varieties are included when they have successfully completed 3 yr in the Barley Committee trials or when acreage of 1 or more member countries of the EBC has risen to 5% or more. Assessment of those varieties which have already been included in the EBC yield trials, both from the agricultural and from the malting and brewing standpoint, is given. Results of national trials form the basis of assessment of the other varieties. The relationship of pedigrees of the more important varieties are given, together with those of the parents. Research stations and other organisations concerned with the barley crop are listed at the end of the book. VJG

710

[Wheat.] Psenice. [A book]

Foltyn, J.
441pp. (1970) [Numerous ref. Cs] Prague, Czechoslovakia: Statni zemedelske nakladatelstvi. Price 40 Kcs

The book deals with the history of wheat growing, the economic importance of wheat, biological

properties of wheat, wheat cultivation, technological properties of wheat, and wheat pests and diseases. STI

711

[Structure of wheat gluten.] [A review]

Tvrzník, K.

Mlynsko-Pekarenský Průmysl 15 (10) 321-23 (1969) [9 ref. Cs] [Výzkumný Ústav Mlynského a Pekarenského Průmyslu, Prague, Czechoslovakia.]

712

Wheat chemistry and technology. [A book]

Pomeranz, Y. (Editor)

(2nd edition) 821pp. (1971) [Numerous ref. En] St. Paul, Minnesota, USA: American Association of Cereal Chemists [Nat. Barley & Malt Lab., Madison, Wisconsin, USA]

This extensively revised edition reviews present knowledge on the cereal chemistry of wheat. The book contains 5 parts: Wheat; Milled products of wheat; Principal chemical components of wheat and flour; Dough; and End products of Wheat. The subject is covered under the headings: Production and utilization of wheat, by J. A. Shellenberger (pp. 1-18, 45 ref.); Criteria of wheat quality, by L. Zeleny (pp. 19-49, 53 ref.); Microscopic structure and composition of the wheat kernel, by M. M. MacMasters, J. J. C. Hinton & D. Bradbury (pp. 51-113, 331 ref.); Principles of milling, by E. Ziegler & E. N. Greer (pp. 115-199, 239 ref.); Criteria of flour quality, by D. B. Pratt, Jr. (pp. 201-226, 12 ref.); Proteins and amino acid composition of wheat fractions, by D. D. Kasarda, C. C. Nimmo & G. O. Kohler (pp. 227-299, 376 ref.); Carbohydrates, by B. L. d'Appolonia, K. A. Gilles, E. M. Osman & Y. Pomeranz (pp. 301-392, 531 ref.); Lipids, by D. K. Mecham (pp. 393-451, 254 ref.); Enzymes, by G. Reed & J. A. Thorn (pp. 453-491, 210 ref.); Wheat pigments and flour colour, by K. L. Fortmann & R. R. Joiner (pp. 493-522, 140 ref.); Rheology and chemistry of dough, by A. H. Bloksma (pp. 523-584, 329 ref.); Composition and functionality of wheat-flour components, by Y. Pomeranz (pp. 585-674, 476 ref.); Bread, by J. G. Ponte, Jr. (pp. 675-742, 201 ref.); Soft wheat products, by W. T. Yamazaki & D. D. Lord (pp. 743-776, 92 ref.); Durum wheat and paste products, by G. N. Irvine (pp. 777-796, 5 ref.). A 20pp. subject index is included. JN

713

Corn: culture, processing, products. [A book]

Inglett, G. E. (Editor)

ix + 369pp. ISBN 0 87055 088 8 (1970) [Numerous ref. En]

[Continued from preceding abstr.] Feed products from corn processing, by J. D. Shroder & V. Heiman (pp. 220-40, 48 ref.); Corn oil, by R. A.

Reiners & C. M. Gooding (pp. 241-61, 105 ref.); Corn dry milling industry, by O. L. Brekke (pp.

262-91, 36 ref.); Corn dry milled products, by S. F. Brockington (pp. 292-306, 23 ref.); Fermentation and distilling industries, by G. E. Inglett (pp. 307-13, 21 ref.); Sweet corn, by A. I. Nelson & M. P. Steinberg (pp. 314-49, 37 ref.); and Nutritive value of corn and its products, by E. T. Mertz (pp. 350-59, 31 ref.). An appendix giving 'Official Grain Standards of the USA for Corn' is included. VJG

714

Corn: culture, processing, products. [A book]

Inglett, G. E. (Editor)

ix 369pp. ISBN 0 87055 088 8 (1970) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co., Inc. Price 17,50 (US) \$ 18.50 (Foreign) [N. Util. Res. & Development Div., Agric. Res. Service, USDA, Peoria, Illinois 61604, USA]

This book gives a broad coverage of the science and technology of corn. Particular attention is paid to subjects of current interest. The book is intended for use by farmers, scientists, industrialists, students and technologists. The following chapters are included: Corn in perspective, by G. E. Inglett (pp. 1-5, 8 ref.); Corn breeding and genetics, by D. E. Alexander, J. W. Dudley & R. G. Creech (pp. 6-23, 38 ref.); Corn culture, by S. R. Aldrich (pp. 24-59, 20 ref.); Harvesting, conditioning, and storage, by G. C. Shove (pp. 60-72, 15 ref.); Farm uses of corn, by T. W. Perry (pp. 73-83, 16 ref.); Economics: production and marketing, by C. A. Moore & P. B. Dwoskin (pp. 84-122, 49 ref.); Kernel structure, composition, and quality, by G. E. Inglett (pp. 123-37, 56 ref.); Food uses of corn around the world, by G. E. Inglett (pp. 138-50, 30 ref.); Corn wet milling industry, by R. A. Anderson (pp. 151-70, 25 ref.); Industrial uses of corn starches, by R. L. Whistler (pp. 171-94, 23 ref.); Food applications of corn starches, by T. J. Schoch (pp. 195-219, 19 ref.). [Continued in following abstr.] VJG

715

Sorghum production and utilization. [A book]

Wall, J. S.; Ross, W. M. (Editors)

x + 702pp. (1-440) (1970) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co. Inc. Price \$30.0 (US) \$31.0 (Foreign) [Northern Utilization Res. and Development Division, USDA, Peoria, Illinois, USA]

This book is the first major work to bring together information on the production and utilization of sorghum, one of the world's leading cereal crops. The book is divided into 5 sections, each containing several chapters. Section headings and chapters are: The sorghum plant and grain: History and classification of sorghum, by J. H. Martin (pp. 1-27, 48 ref.); Development and structure of the sorghum plant and its fruit, by J. E. Freeman (pp. 28-72, 42 ref.); Sorghum genetics, breeding and hybrid seed production, by J. R. Quinby & K. F. Schertz (pp.

73-117, 118 ref.); Composition of sorghum plant and grain, by J. S. Wall & C. W. Blessin (pp. 118-66, 136 ref.); Production of sorghum: Cultivation of grain sorghum in the United States, by N. W. Kramer & W. M. Ross (pp. 167-99, 36 ref.); Sorghum diseases, by L. K. Edmunds, M. C. Futrell & R. A. Frederiksen (pp. 200-34, 108 ref.); Sorghum insects, by W. R. Young (pp. 235-87, 192 ref.); Sorghum in otherlands: Sorghum in Africa, by H. Doggett, D. L. Curtis, F. X. Laubscher & O. J. Webster (pp. 288-327, 90 ref.); Sorghum in Asia, by K. O. Rachie (pp. 328-81, 65 ref.); Utilization of the plant: Sorghum for forage, by F. G. Owen & W. J. Moline (pp. 382-415, 116 ref.); Syrup and sugar from sweet sorghum, by O. H. Coleman (pp. 416-40, 30 ref.). JA

716

Sorghum production and utilization. [A book] Wall, J. S.; Ross, W. M. (Editors) x+702pp. (441-702) (1970) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co. Inc. Price \$30.0 (US) \$31.0 (Foreign) [Northern Utilization Res. and Development Division, USDA, Peoria, Illinois, USA]

[Continued from preceding abstr.]

Broomcorn, by D. E. Weibel (pp. 441, 68, 32 ref.); Utilization of the grain: Drying, storing, and handling sorghum grain, by J. W. Sorenson Jr. & N. K. Person Jr. (pp. 469-506, 30 ref.); Sorghum grain in ruminant nutrition, by W. H. Hale (pp. 507-33, 35 ref.); Grain sorghum in poultry and swine nutrition, by J. H. Quisenberry & T. D. Tanksley Jr. (pp. 534-72, 45 ref.); Dry milling and products of grain sorghum, by R. R. Hahn (pp. 573-601, 115 ref.); Wet-milling process and products, by S. A. Watson (pp. 602-26, 32 ref.); Economic considerations, by C. A. Moore & K. R. Majors (pp. 627-64, 43 ref.); The future of grain sorghum, by C. A. Moore & D. G. Nelson (pp. 665-86, 31 ref.) A subject index is included (pp. 687-702). JA

717

FAO rice report 1972.

Food & Agriculture Organization

FAO Rice Report iv+28pp.+XI (1972) [53 ref. En] [Rome, Italy]

The rice trade and prices in 1971 are summarized. Recent developments such as halting the upward trend in paddy output, limiting export supplies of round grain rice in 1972, export supplies of long grain rice and import demand for rice are discussed based on information available up to Sept. 1972. World market prices for 1972 are expected to average well over the 1971 level. Unfavourable weather and/or disruption by war have affected the 1972 paddy crops in a number of countries, so that the upward pressure on prices was likely to continue in 1973. Statistical tables giving production, exports, imports, market prices and carryover stocks are given for a number of countries. The rice production, consumption and

trade policies of Japan are also reviewed. A supplement gives a bibliography on rice economics. [See FSTA (1972) 4 5D296 for 1971 report.] PG

718

Modern Breakfast cereal processes. [A book] Daniels, R.

Food Processing Review, Noyes Data Corporation 13: 217pp. (1970) [En] Park Ridge, New Jersey: Noyes Data Corp. Price \$35

This review is based on US Patents relating to the production of modern breakfast cereals. The subject is covered under the chapter headings: Dough cooking and extrusion processes; Treatment prior to puffing; Puffing processes; Processes for whole cereal grains; Cereal shaping processes; Sugarcoating processes; Fruit incorporation and nutritional enrichment; and Quick cooking cereal products. A company index, inventor index and US Patent number index are provided. JN

719

[Bulk storage and pneumatic transportation of flour in bakeries.] Bestarnoe khranenie i pnevmaticheskoe transportirovanie muki na khlebo i zavodakh. [A book]

Morev, N. E.; Mukhin, V. V. 356pp. (1969) [28 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost' Price 1.40 rouble

This well-illustrated book is designed for engineers and technicians involved in erecting, repairing, or operating bakery equipment. It contains the following chapters: Lay-out of equipment for reception and storage of bulk flour and intrabakery pneumatic movement of the flour (pp. 7-38); Special equipment (pp. 39-120); Linked equipment (pp. 121-50); Road tankers (pp. 151-59); Experiments with bulk storage and pneumatic movement of flour at bakeries (pp. 160-82); Bulk storage and transport of flour - foreign experience (pp. 183-235); Design and size of equipment (pp. 236-303); and Setting up and operation of equipment (pp. 304-52). HBr

720

[Processing of flour and groats in on-farm mills.] Vyrabotka muki i krupy v sel'skokhozyaistvennom mukomol'e. [A book]

Zhislin, Ya. M.; Tereshchenko, A. K. 229pp. (1969) [7 ref. Ru] Moscow, USSR: Izdatel'stvo 'Kolos' Price 0.92 rouble

The following chapters are included: Basic information on the formation of grain (pp. 5-13); Machines for cleaning and preparing grain for processing into flour and groats (pp. 13-40); Machines for grinding flour and its products (pp. 41-74); Machines for dehushing grain and for polishing groats (pp. 75-91); Machines for sorting, fortifying and cleaning of ground and dehushed products (pp. 92-119); Fundamentals of organization of cleaning and preparation of grain

for processing into flour and groats (pp. 120-26); Technical lay-outs of processes for converting grain into flour (pp. 127-76); Technical lay-out of processes for converting grain into groats (pp. 177-94); and Organizing receipt of grain and despatch of products in on-farm mills (pp. 195-216). A 14-pp. appendix gives a series of tables covering technical aspects of operation, such as requirements for and siting of magnetic barriers, numbers of cogs required on pinions in roller mills, and sieve mesh requirements. HBr

721

[Technology of flour-mill products.] Tekhnologiya mukomol'nogo proizvodstva. [A book]
Naumov, I. A.
303pp. (1968) [Ru] Moscow: KOLOS Price 65 k.

This book is intended for workers in flour mills and as a general textbook. Topics discussed are: the development of the milling industry; technological and mechanical properties of grain; uses of grain; elimination of impurities; the theory of grain milling; influence of equipment on milling; grain sieving; classification of grain by size, use and types; milling operations for producing different types of flour; planning of grain processing operations. STI

722

Regulations for the organization and execution of the technological process in mills. [A book]
Union of Soviet Socialist Republics, All Union Scientific Research Institute for Grain and Grain Products
191pp. (1968) [En] Boston Spa, Yorkshire, England: National Lending Library for Science and Technology. Price 21s

This is a translation, by D. M. Keane, of the Russian book 'Pravila organizatsii i vedeniya tekhnologicheskogo protsessa na mel'nitsakh' published in 1967 by TsINTI, Goskomzaga, Moscow.

723

[Manual for milling and production of flour and feed concentrates.] Spravochnik mukomola, krupyanshchika i kombikormshchika. [A book]
Bardyshev, G. M.; Kulak, V. G.; Fedyayev, V. I.; Khabe, L. I.
199 pp. (1968) [Ru] Moscow: Izdatel'stvo "Kolos"

724

[Modern dough production in bakeries.] Sovremennaya tekhnologiya prigotovleniya testa na khlebozavodakh. [A book]
Roiter, I. M.
357pp. (1971) [271 ref. Ru] Kiev, USSR: Izdatel'stvo Tekhnika. Price 1.36 roubles
Research and commercial experiences with large Soviet bread-baking plants are discussed with

special reference to dough processing methods. Methods of wheat and rye dough production are described and accompanied by diagrams. Modern dough processing methods with shortened leavening periods are dealt with. Principles of construction and operation of modern dough producing machinery are covered. Problems of liquid and pressed yeast production are discussed and application of various improvers is mentioned. [See also FSTA (1969) 17MA76.] STI

725

[KhTR continuous doughmakers.] Nepreryvno deistvuyushchie testo-prigotovitel'nye agregaty KhTR. [A book]
Rabinovich, I. L.
157pp. (1969) [Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 0.49 rouble

This monograph describes the KhTR continuous doughmakers designed by the author. It consists of the following chapters: General information about the KhTR doughmaker (pp. 8-15); Kh-12 continuous dough mixer (pp. 15-22); Continuous flour dispensers (pp. 23-31); Raw material preparation equipment (pp. 51-59); Kh-13 continuous fermenter (pp. 59-72); Technology of dough production in the KhTR doughmaker (pp. 72-87); Wheat flour dough dividing in KhTR doughmakers (pp. 87-93); Modified KhTR doughmakers (pp. 94-109); Installation designs for KhTR doughmakers in bakeries (pp. 109-39); Erection, servicing and operation control of the KhTR doughmaker (pp. 140-50); and Economic efficiency of KhTR doughmaker (pp. 150-53). SKK

726

[Mechanization of dough treatment.] Mekhanicheskaya obrabotka testa. [A book]
Goryacheva, A. F.; Shcherbatenko, V. V.
34 pp. (1968) [Ru] Moscow, CIINTE-Pishcheprom. Price 14 k.

This booklet gives a brief account of the processes which occur in dough while being mechanically worked and is intended for workers in bread bakeries. Contents include: sequence of dough mixing procedures; influence of mixing time and intensity on the physical properties of dough; biochemical value and properties of bread; mechanical treatment of dough; procedures and optimal degree of mechanical treatment; high-speed dough mixing machines. STI

727

[Modern technology in dough processing in bakeries.] [A book]
Roiter, I. M.
367pp. (1968) [270 ref. Ru] Kiev: Tekhnika
Price 1 R 39 kop.

This book is intended primarily for engineers and technicians in the baking industry, and students at food industry institutes. The subject is in 9 chapters, as follows:
"Technological characteristics of pressed yeasts

and methods of activating them' (pp. 9-30); 'Preparation of liquid yeasts' (pp. 31-70); 'Preparation of wheat dough by the no-leaven process and from thick leaven' (pp. 71-104); 'Preparation of wheat dough from semi-manufactured liquid bases' (pp. 105-70); 'Methods of preparing dough by intensive mixing and short-time fermentation before breaking' (pp. 171-250); 'Preparation of dough from rye flour semi-solid leaven' (pp. 251-72); 'Preparation of dough from rye flour using liquid leaven' (pp. 273-318); 'Rapid methods of dough preparation' (pp. 319-26); and 'Preparation of dough using various improvers'. Numerous diagrams and a comprehensive bibliography are included, but there is no subject index. HBr

728

An introduction to the physics and chemistry of baking. [A book]

Dean, K. J.; Edwards, N. E.; Russell, C. A.
ix + 211pp. (1968) [En]

This elementary text-book covers the subject-matter required for the City and Guilds Examination in Bakery Science. JN

729

Safety in the use of machinery in bakeries. [A book]

United Kingdom, Department of Employment and Productivity
New series No. 9 78pp. (1968) [En] London: HMSO
Price 8s 6d

This booklet is an amendment of the edition 1st published in 1962. It contains numerous good illustrations and photographs. Safety in the use of the following types of machinery is discussed: dough dividers; bun and roll dividers; dough moulding machines; pie and tart machines; dough brakes; mixing machines; bread slicing and wrapping machines; mincing machines; sack elevators; provers; bread crumbing machines; flour sifting machines; dough bowl tippers; ovens; new machinery. Braking and time-delay devices for machinery in motion by virtue of the inertia of its moving parts are also discussed. There is a short chapter on maintenance. An appendix deals with legal requirements affecting: fencing; construction and sale of new machinery; training and supervision of young persons working at dangerous machines; notification of accidents. JN

730

[Raw materials and auxiliary materials in the baking industry.] Surowce i materialy pomocnicze w piekarstwie. [A book]
Jakubczyk, T.
207pp. (1969) [Pl] Warsaw: Państwowe wydawnictwa szkolnictwa zawodowego. price 10 zł.

This book deals with basic properties of raw and auxiliary materials used in the baking industry, basic principles and methods of sensory

evaluation of foods, and undesirable changes in dough. Storage of raw materials and finished products is also covered. Individual chapters deal with: basic information on raw materials, storage of raw materials, grain flour, potatoes and potato products, sugar and honey, fruit and fruit products, yeast, water, milk and milk products, eggs and egg products and fats. STI

731

[Equipment for bakeries.] Oborudovanie predpriyatii khlebopekarnoi promyshlennosti. [A book]

Sigal, M. N.; Volodarskii, A. V.; Tropp, V. D.
312pp. (1971) [16 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.48 rouble

This book, approved by the Council of Ministers of the USSR as a textbook for technical colleges and for improving the qualifications of workers in the bakery industry, contains chapters giving general information of machines (pp. 6-17), and on equipment for storing and transporting flour (pp. 17-35), for mixing and sieving flour (pp. 35-57), for dispensing (pp. 59-84), for mixing and fermenting dough (pp. 85-112), for handling dough (pp. 112-128), for dough-forming (pp. 128-195) and for proofing (pp. 195-223), on baking ovens (pp. 223-266), production lines (pp. 266-281), special equipment (e.g. for greasing pans) (pp. 281-287) and fundamentals of automation of the baking process (pp. 287-308). HBr

732

[Laboratory experiments on the technology of bakery production.] Laboratornyi praktikum po tekhnologii khlebopekarnogo proizvodstva. [A book]

Puchkova, L. I.
2nd edition 191pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.62 rouble

This book, designed for use by students at colleges with food departments, gives a planned laboratory course of experiments covering determination of the baking characteristics of wheat and rye flour, dough-making, determination of the quality of the finished bread, the effect of various technological factors (e.g. proofing) on bread quality, methods of improving bread quality, and defects in bread. HBr

733

Bakery technology and engineering. [A book]
Matz, S. A.

2nd edition 598pp. ISBN 0 87055 109 4 (1972)
[Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc. Price \$29.00 (US), \$30.00 (Foreign) [Ovaltine Products Div. of

Sandoz-Wander, Villa Park, Illinois, USA]

This 2nd edition of the book first published in 1960 has been completely rewritten. The format is the same as that of the 1st edition but new chapters have been added and some of the original ones shortened. The purpose of the book is to provide those persons interested in bakery science with the principles of modern large-scale processing techniques. The book consists of the following 4 sections, each containing several chapters: The materials of baking (pp. 1-164); Formulations and procedures (pp. 165-257); Equipment (pp. 259-536); and Technical functions in bakery operations (pp. 537-587). The individual chapters are: Flour (pp. 1-23, 47 ref.); Water (pp. 24-34, 15 ref.); Leavening agents (pp. 35-48, 26 ref.); Sweeteners (pp. 49-60, 20 ref.); Shortenings, emulsifiers, and antioxidants (pp. 61-81, 23 ref.); Milk products (pp. 82-107, 26 ref.); Eggs (pp. 108-117, 17 ref.); Fruits and nuts (pp. 118-134, 10 ref.); Flavours and colours (pp. 135-148, 11 ref.); Minor ingredients (pp. 149-164, 16 ref.); Formulations and procedures for air-leavened; steam-leavened, and unleavened products (pp. 165-188, 26 ref.); Formulations and procedures for chemically-leavened bakery products (pp. 189-206, 23 ref.); Formulations and procedures for yeast-leavened bakery foods (pp. 207-236, 30 ref.); Formulas and procedures for making adjuncts (pp. 237-257, 20 ref.); Bulk handling of ingredients (pp. 259-276, 26 ref.); [Continued in following abstr.] JA

734

Bakery technology and engineering. [A book]
Matz, S. A.
2nd edition 598pp. ISBN 0 87055 109 4 (1972)
[Numerous ref. En]

[Continued from preceding abstr.] Weighing and measuring equipment (pp. 277-306, 15 ref.); Mixers and mixing (pp. 307-327, 27 ref.); Makeup equipment (pp. 328-360, 32 ref.); Continuous processing of bakery products (pp. 361-386, 30 ref.); Fermentation and proofing enclosures (pp. 387-409, 21 ref.); Ovens and associated equipment (pp. 410-437, 23 ref.); Slicers (pp. 438-459, 9 ref.); Packaging equipment and materials (pp. 460-482, 38 ref.); Auxiliary equipment (pp. 483-495, 3 ref.); Freezing and other special preservation methods (pp. 496-536, 24 ref.); Research and development (pp. 537-559, 36 ref.); Quality control (pp. 560-573, 21 ref.); and Nutritional considerations in formulating bakery products (pp. 574-587, 12 ref.). JA

735

[Bakery planning.] Proektirovanie khlebopekarnykh predpriyatiy. [A book]
Zvereva, L. F.; Kolobaev, Yu. A.; Myrsin, V. A.; Smirnov, E. S.
191pp. (1971) [22 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost' Price 0.75 rouble

This book, intended for students at food industry institutions of higher learning as well as a guide on plant reconstruction and enlargement for baking industry personnel, consists of the following main chapters: General information on bakery planning (pp. 4-6); Selection and calculation of technical equipment for manufacture of bread and flour confectionery products (pp. 7-49); Selection and calculation of equipment for manufacture of bagel and biscuit products (pp. 50-62); Type plans of bakeries (pp. 63-69); Fundamentals of bakery layout (pp. 70-114); Architectural and constructional aspects (pp. 115-125); Industrial hygiene aspects (pp. 126-140); Energy supply aspects (pp. 141-162); and Technico-economic aspects (pp. 163-188). SKK

736

[Basis for the automation of processes in the baking industry.] Osnovy avtomatizatsii khlebopekarnogo proizvodstva. [A book]
Khazhinskii, M.
357pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya promyshlennost'. Price 1.03 roubles

This book is intended mainly for students and for technicians in the baking industry. It contains the following chapters: Elements of automation; Principals of measuring techniques; Automatic temp. control; Automatic control of material consumption; Automatic level control; Automatic control of physical and chemical properties of materials; Principals of automatic regulation; Standardized systems of control and regulation apparatus; Principal automation systems; Automation of intake, storage and transport of flour; Automatic preparation of solutions; Automatic yeast preparation; Automation of dough production; Automation of dough cutting lines; Automation of the baking process; and Economic effects of automation in the bakery industry. STI

737

[Installation of equipment in bakeries.] Montazh tekhnicheskogo oborudovaniya khlebozavodov i pekarei. [A book]
Gal'perin, D.M.
269pp. (1969) [Ru] Moscow: Pishchevaya promyshlennost'. Price 42 k.
This book is intended for mechanics engaged in installation work. STI

738

[Apparatus and equipment used in baking industry.] Aparatura i urzadzenia techniczne w piekarstwie. [A book]
Renski, A.
159pp. (1969) [Pl] Warsaw, Poland: PWSZ. Price 8 zl.

Basic information is given on the operation and maintenance of equipment used in bakeries. Information on design and construction of equipment is accompanied by diagrams. STI

739

[Scientific organization of labour (NOT) in factories producing bakery products.] NOT na predpriyatiyakh otrasli khleboproduktov. [A book] Gavrichenkov, D. N.; Pavlinov, Ya. N.; Ugolik, N. F. 192pp. (1969) [11 ref. Ru] Moscow, USSR: Izdatel'stvo 'Kolos' Price 0.60 rouble

This book covers the application to the breadmaking and confectionery industry of scientific principles in the organization of labour, improvement of technological process and the development and implementation of plans and standards. Aesthetic aspects of labour, wages and scientific control of production are also discussed. HBr

740

[Technical, industrial and financial planning in bakeries.] Tekhpromfinplan khlebozavoda. [A book] Klimova, E. P. 293pp. (1970) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost. Price 0.73 rouble

This handbook, intended for technical personnel in the baking industry, consists of the following chapters: Bases of planning within the factory (pp. 7-15); Planning production and sales (pp. 16-36); Planning for improved manufacturing efficiency (pp. 36-58); Planning of technical and economic standards (pp. 58-73); Planning capital structure (pp. 73-79); Planning supplies of materials (pp. 79-105); Planning labour and wages (pp. 106-39); Production costing (pp. 140-79); Planning returns and profits (pp. 179-87); Planning promotion and development (pp. 188-97); Financial plans (pp. 198-231); and Basic indices (pp. 231-36). SKK

741

Practical baking workbook. An educational instrument for self-testing and self-learning. [A book]

Sultan, W. J. 155pp. ISBN 0 87055 095 0 (1970) [En] Westport, Connecticut, USA: AVI Publishing Co. Inc. Price \$5.00 (US), \$6.00 (Foreign) [Food Trades Dept., Food and Maritime Trades High School, New York, New York, USA]

The contents of this workbook are directly related to the course of study appearing in the appendix (pp. 465-79) of the 2nd edition of 'Practical baking' [See FSTA (1970) 2 2M140], the purpose of the book being to enable the apprentice baker receiving on-the-job training or the student to supplement his training through reading, research, etc. The book consists of series of questions and practical assignments,

relevant page numbers in 'Practical baking' being given for each question or assignment to assist the apprentice or student. Topics covered by the questions are: general introductory (tools, terms, practices), soft roll dough preparation, yeast-raised dough preparation, bun dough preparation, biscuit and muffin dough preparation, pie dough and filling preparation, cake mix preparation, doughnut preparation, cookie dough preparation, bread dough preparation, Danish and puff pastry preparation, and review of cake preparation. JA

742

Practical baking. [A book]

Sultan, W. J. 2nd edition, xii + 492pp. (1969) [41 ref. En] Westport, Connecticut: AVI Publishing Co. Inc. Price \$ 15.00 (US) \$ 16.00 (Foreign) [Food and Maritime Trades High School, New York, New York, USA]

The book is designed to be used as a guide by teachers of baking and allied subjects, and as a handbook and reference work by bakers. This 2nd edition includes a recently developed course of study and training guide for bakers. The book is divided into 8 main divisions (ingredients and their properties, bread and rolls, sweet yeast dough products, biscuits and muffins, fried products, pies and pastry, cakes and cake specialties, cookies). Each chapter in the first division deals with a particular ingredient or group of ingredients, and one chapter considers staling of bakery products. Chapters in the remaining divisions are: 'Basic operations in bread making'; 'Egg bread, French and Italian bread, hard and soft rolls'; 'Rye bread varieties'; 'Recipes for bread and rolls'; 'Proper handling of sweet yeast dough'; 'Recipes for sweet yeast dough products'; 'Factors concerning biscuits and muffins'; 'Recipes for biscuits and muffins'; 'Factors concerning doughnuts and crullers'; 'Recipes for dough nuts and crullers'; 'Pie crusts and short doughs'; 'Fruit pies and pie baking'; 'Soft-filled pies'; 'Puff pastry'; 'Factors concerning cream puffs and eclairs'; 'Recipes for pies and pastry'; 'Cake mixing methods'; 'Icings and toppings'; 'Balancing cake recipes'; 'Recipes for cakes and cake specialties'; 'Factors concerning cookies'; 'Recipes for cookies'. Many illustrations are included. The bibliography lists relevant textbooks, bulletins and pamphlets, manuals, trade publications and films. The appendix includes a table of approximate baking temperatures, weight/volume conversion tables for ingredients, and a glossary of baking terms. JA

743

[Recipe manual for bakery products.] Sbornik retseptur na khlebobulochnye izdeliya. [A book] Egorova, G. S.; Remizova, S. I. 184pp. (1970) [Ru] Moscow, USSR: Izdatel'stvo 'Ekonomika'. Price 0.28 rouble

This manual, intended for bakery workers, contains recipes for rye and wheat breads and rolls, fancy and small bakery goods, rusks and dietetic products, as well as official recipes for bakery products in constituent Soviet republics and lands. SKK

744

[Collection of recipes for bakery products.]
Sbornik retseptur na khlebobulochnye izdeliya. [A book]

Egorova, G. S.; Remizova, S. I.
182pp. (1970) [Ru] Moscow, USSR: Izdatel'stvo
Ekonomika. Price 0.28 rouble

This publication is divided into 9 parts dealing with recipes for and physical and chemical properties of bread produced from rye and wheat flour, white bread and rolls, buns and fancy bakery products. Recipes for the production of bakery products containing milk, quarg and whey are also included. The book gives a survey, with recipes, of bakery goods production in the USSR. STI

745

[Collection of recipes for bakery products.]
Sbornik retseptur na khlebobulochnye izdeliya.
[Book]

Egorova, G. S.; Remizova, S. I.
224pp. (1972) [Ru] Moscow, USSR,
"Ekonomika". Price 0.46 rouble

This book contains the following chapters: Rye flour bread; Mixed rye and wheat flour bread; Wheat flour bakery products; Small bakery products; Fancy bakery products; Biscuit products; Dietetic products; Russian bread and bakery products; Ukrainian bread and bakery products; Moldavian bread and bakery products; White Russian bread and bakery products; Bread and bakery products of the Baltic republics; and Bread and bakery products manufactured in various parts of the USSR e.g. Georgia, Kazakhstan. STI

746

[Manufacture of flour confectionery and biscuits.]
Proizvodstvo muchnykh konditerskikh i sukharnykh izdelii. [A book]

Starodumova, E. Ya.; Remizova, S. I.;
Dankovtseva, D. I.
174pp. (1968) [Ru] Moscow: Izdatel'stvo
'Ekonomika' Price 51 kop.

This book, primarily intended for workers in the bakery and confectionery trades, contains over 100 detailed recipes for different types of cakes and biscuits, together with information about official standards and regulations. Photographs of 19 types of cake are included. SKK

747

Our daily bread. [A book]

Pyler, E. J.
vi + 157pp. (1958) [56 ref. En] Chicago: Siebel
Publishing Co. Price \$2.00

The main purpose of this book is to provide a summary of information pertaining to modern, enriched white bread, to trace its evolution

through the ages, to review the various ingredients used, to outline briefly the commercial baking procedures and to evaluate the nutritional contribution of bread to the diet. Chapters are: 'History of baking' (pp. 6-25); 'Wheat and flour' (pp. 26-55); 'Miscellaneous bread ingredients' (pp. 56-79); 'Technology of breadmaking' (pp. 80-93); 'Composition of bread' (pp. 94-117); 'Bread and nutrition' (pp. 118-39). An appendix is included which reproduces the definitions and standards of bakery products according to the 1952 Federal Food, Drug and Cosmetic Act. JA

748

[100 centuries of bread.] 100 wiekow chleba. [A book]

Luzmnicki, B.
267pp. (1968) [Pl] Warsaw: Ksiazka wiedz Price 15
zl.

Data on bread production in individual countries from early times to the present day are presented. The history of grain cultivation and milling and the development of industrial bread production are discussed. STI

749

[Laboratory studies of bread baking.]
Laboratornyi praktikum po tekhnologii
khlebopekarnogo proizvodstva. [A book]
Puchkova, L. I.

190pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo
Pishchevaya promyshlennost'. Price 0.62 rouble

This handbook for university students contains the following chapters: Baking properties of wheat flour; Determination of baking properties of wheat flour on the basis of laboratory baking tests; baking properties of rye flour; Quality of bread and bakery products; Principal methods of wheat dough production; Effect of resting time on bread quality; Ways of improving bread quality; and Bread faults, their causes and ways of eliminating them. STI

750

Bread science and technology. [A book]

Pomeranz, Y.; Shellenberger, J. A.
262pp. ISBN 0 87055 104 3 (1971) [Numerous
ref. En] Westport, Connecticut, USA: AVI
Publishing Co. Inc. Price \$17.00 (US), \$18.00
(Foreign) [Nat. Barley and Malt Lab., USDA,
Madison, Wisconsin, USA]

This book combines considerations of the history of breadmaking, past and present baking procedures and bread types around the world with modern concepts of baking technology, nutrition and cereal science. Chapters are: Introduction (pp. 1-6, 22 ref.); From grain to flour (pp. 7-33, 18 ref.); The art and science of breadmaking (pp. 34-54, 13

ref.); Bread in various countries (pp. 55-128, numerous ref.); Wheat, flour, and bread testing around the world (pp. 129-168, 69 ref.); Sensory attributes and bread staling (pp. 169-186, 22 ref.); and Bread in health and disease (pp. 187-219, 78 ref.). An appendix (pp. 220-253) gives: weights, measures, and conversion factors; quality requirements for cereal grains according to the standards of the EEC; chemical formulas of flour improvers and their reduction products; bakery products definitions and standards under the US Food, Drug and Cosmetic Act; glossary of technical terms; and around-the-world bread recipes. JA

751

[**Industrial ovens in bread and confectionery bakeries.**] Promyshlennye pechi khlebopekarnogo i konditerskogo proizvodstva. [A book] Maklyukov, I. I.; Shumaev, F. G. 3rd edition 392pp. (1971) [70 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.09 rouble

This text-book, intended for students at food industry institutions of higher learning as well as for engineering workers, consists of the following main chapters: General information about modern baking oven units (pp. 7-29); Baking chamber processes, optimal baking regime and specific performance of baking oven (pp. 29-63); Heat balance of baking oven unit (pp. 63-88); classification of baking ovens (pp. 88-94); Regenerative baking ovens (pp. 94-103); Tunnel baking ovens (pp. 103-183); Baking ovens with recirculation of flue gases (pp. 183-229); Baking ovens with steam-and-water and steam heating (pp. 229-255); Baking ovens with combined heating (pp. 256-267); Gas-heated baking ovens (pp. 267-284); Electrically heated baking ovens (pp. 284-307); Utilization of flue gas heat (pp. 307-312); and Baking oven heat exchange calculations (pp. 312-384). SKK

752

[**Technology of bread production.**] Tekhnologiya khlebopekarnogo proizvodstva. [Book] Auerman, Ya. 512pp. (1972) [many ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.47 rouble

The book deals with scientific principles of bread making. Properties of basic raw materials, manufacturing processes, and yield, losses and storage of bread are dealt with. The individual chapters of the book cover with the following: development of bread production in the USSR; outlay of bread production process; properties of main raw materials; storage and treatment of raw materials; wheat dough manufacture; rye dough manufacture; dough cutting and forming; baking process; bread storage; yield in bread production; improving bread quality; faults of bread; main kinds

of bread and bread products; and nutritional value of bread and its determination. STI

753

[**Breadmaking. Its principles and practice.** [A book] Bennion, E. B. 4th edition 391 pp. (1967) [38 ref. En] London: Oxford Univ. Press, Ely House, 37, Dover Street. Price 63s.

In this 4th edition the text has been revised and information concerning new materials included together with recent innovations in the bread-making industry. The 20 chapters deal with flour treatment and additives; the bread-making process (including the changes taking place in the dough during fermentation and baking); the mixture value of bread; staling; judging qualities and faults in bread; defects in flour, yeast and bread; and methods of testing the raw materials. A new chapter on deep freezing with extended information on bread wrapping is included. Other chapters deal with the mechanics of the process, details being given of several bread-making processes and systems; bakery construction, organization and costings. JA

754

[**Up-to-date bread making.** [A book] Fance, W. J.; Wragg, B. H. 297 pp. (1968) [En] London: MacLaren and Sons Ltd. Price 110s.

This handbook for the modern baker contains 32 chapters and is well illustrated. It deals with such topics as flour, bread additives, breadmaking processes, examination of bread, mould and rope, staling and the food value of bread. Attention is paid to future developments within the industry. The final 13 chapters contain descriptions and detailed recipes of many types and varieties of bread which are grouped under the following headings: pan breads; crusty and built up breads and crumbly types; brown and malt breads; Vienna bread and rolls; milk bread varieties; fruit breads; national and regional breads and fermented goods; speciality breads; fermented small goods; novelty and plaited breads; hot-plate goods; chemically aerated breads and competition breads. There is no bibliography. JA

755

[**Manufacture of bread kvass.**] Proizvodstvo khlebnogo kvasa. [A book] Yakubovich, F. F. 160pp. (1968) [43 ref. Ru] Moscow: Izdatel'stvo 'Pishchevaya Promyshlennost' Price 32 k.

This book is intended primarily for technicians in establishments producing kvass (a fermented drink traditionally made from bread). The subject is in 13 chapters as follows: 'Biochemical foundations of bread kvass manufacture' (pp. 7-18); 'Raw materials for bread kvass manufacture and their preparation' (pp. 18-

60); 'Technology of bread kvass manufacture' (pp. 60-83); 'Processes and equipment' (pp. 83-104); 'Bread kvass recipes' (pp. 104-05); 'Manufacturing losses' (pp. 106-07); 'Bread kvass quality' (pp. 107-16); 'New types of kvass' (pp. 116-24, dealing with protein-vitamin kvass, apple kvass with raisins, and Kiev kvass, a malted maize beverage); 'Factory control and accounting' (pp. 125-34); 'Factory hygiene' (pp. 134-38); 'Anticorrosion coatings' (pp. 139-41); 'Refrigeration and compression units' (pp. 141-48); and 'Safety measures and personnel protection' (pp. 148-52). Appendices (pp. 155-58) contain some instructions and regulations. Numerous diagrams are included. SKK

756

Biscuit manufacture - fundamentals of in-line production. [A book]

Whiteley, P. R.

xvii + 300pp. SBN 444 20072 X (1971) [7 ref. En] Barking, Essex, UK: Elsevier Publishing Co. Ltd. Price £8.00 [Dept. of Baking, Rush Green Tech. Coll., Romford, Essex, UK]

This well-illustrated book, containing >100 photographs of products and processing equipment, is intended as a guide for potential managers and supervisors and for those who wish to understand the fundamental principles of biscuit manufacture. The purpose of the book is to simplify and explain the technology of raw materials, processes and techniques involved in the manufacture of biscuits on factory principles. It should also be of use to educational and research establishments dealing with food subjects. The book is divided into 5 parts, each containing one or more chapters. The 5 parts are: Raw materials (pp. 1-100), covering flour and cereal products, fats and oils, sweeteners, aerating agents, dairy products, fruit and nuts, setting materials, chocolate and cocoa products, flavouring materials and colorants; Classification and methods (pp. 101-123), covering biscuit types and production methods; Formulae - quality control and development (pp. 125-197), covering basic ingredient proportions for biscuit doughs, wafers, marshmallows, creams and fillings, quality control, re-use and disposal of unsatisfactory products, and development; Plant and equipment (pp. 199-266), covering raw materials storage and handling, mixing and machine room equipment, ovens and baking, wafers and second process equipment, ancillary equipment and automation, and packaging of biscuits; and General considerations (pp. 267-287), covering factory layout and hygiene. A subject index is included. JA

757

[Manufacture of biscuits in the USSR and abroad.] Proizvodstvo krekerov v SSSR i za rubezhom. [A book]

Soboleva, M. I.; Gaister, P. I.

46pp. (1968) [Ru] Moscow: CINTI-Pishcheprom Price 17 k.

758

Cookie and cracker technology. [A book]

Matz, S. A.

x + 320pp. (1968) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co. Inc. Price \$16.00 [Robert A. Johnston Co., Milwaukee, Wisconsin, USA]

The purpose of this book is to provide a comprehensive reference source for food technologists working in the biscuit, cracker and snack product field. The book discusses the ingredients formulas and procedures, equipment and organization of technical services in 4 separate sections. Section 1 (pp. 1-115) describes the characteristics of quality control tests applied to, and effects on cookies and crackers of: flour, water, sweeteners, shortenings, emulsifiers, milk products, eggs, leavening agents, fruit and nuts. Typical formulas and procedures for common varieties of crackers and cookies are described in Section 2 (pp. 119-79) together with suitable variations for the production of more exotic types. The following chapters are included: 'Base cakes and plain cookies' (pp. 119-36); 'Fermented dough products' (pp. 137-49); 'Specialty cookies' (pp. 150-62); 'Coatings, fillings, cremes and marshmallow' (pp. 163-79). The 3rd and 4th sections contain the following chapters: 'Bulk handling and metering' (pp. 183-98); 'Mixers and mixing' (pp. 199-216); 'Equipment for rotary moulding' (pp. 217-28); 'Wire-cut and deposit equipment' (pp. 229-37); 'Machines for laminating, cutting and embossing' (pp. 238-53); 'Ovens and baking' (pp. 254-67); 'Wafer plants' (pp. 268-76); 'Auxiliary equipment' (pp. 277-89); 'Quality control' (pp. 293-302); 'Research and development' (pp. 303-16). VJG

759

[Manufacture of wafers.] Produkcja wyrobów wafelowych. [A book]

Warsza, H.

150pp. (1970) [21 ref. Pl] Warsaw, Poland: Wydawnictwa Naukowo-Techniczne. Price 15 zł

This book deals with all processes in wafer production. Wafer products, raw materials used, packaging, storage, shelf life and sanitary measures in wafer production are discussed. The main chapters are: Raw materials used; Wafers and wafer products; Chocolate coated wafers; Waste in wafer production and its utilization; Storage of wafers and wafer products; Control measures; and Modern machinery and equipment used in wafer production. STI

760

Celebration cakes. Their production and decoration. [A book]

Howkins, M. W.

xix + 223pp. (1968) [En] London: MacLaren and Sons Ltd., Price 147s

This well-illustrated book describes the preparation and decoration of all types of cakes

under the headings: "Raw materials" (pp. 1-4); "Standardization" (pp. 5-7); "Wedding cake manufacture" (pp. 8-10); "Almond icing" (pp. 11-14); "Royal icing" (pp. 15-18); "Selection of equipment" (pp. 19-23); "Elementary piping" (pp. 24-30); "Coating the cake" (pp. 31-35); "Drawing and designing" (pp. 36-42); "Decorating a wedding cake" (pp. 43-51); "Advanced piping" (pp. 52-57); "Modern designing" (pp. 58-63); "Celebration cakes" (pp. 64-72); "Heraldry" (pp. 73-79); "Gum paste" (pp. 80-84); "Birthday cakes" (pp. 85-88); "Lettering" (pp. 89-93); "Flower piping" (pp. 94-104); "Figure craft: birds" (pp. 105-23); "Figure craft: animals" (pp. 124-38); "Figure piping" (pp. 139-43); "Colour craft" (pp. 144-59); "Colour for birthday cakes" (pp. 160-64); "Borders for birthday cakes" (pp. 165-67); "Novelty cakes" (pp. 168-74); "Party cakes" (pp. 175-77); "Exhibition commercial cakes" (pp. 178-81); "Marzipan" (pp. 182-89); "Chocolate" (pp. 190-91); "Christmas cakes" (pp. 192-99); "Commercial production" (pp. 200-05); "Packaging of cakes" (pp. 206-08); "Method study in mass production" (pp. 209-12); "Quality control" (pp. 213-14); "Bakery hygiene" (pp. 215-16); "Conclusion" (pp. 217-19). JN

761

[Technology of freezing of bakery and sweet pastry products.] Tekhnologiya zamorazhivaniya khlebobulochnykh i mukhnykh konditerskikh izdelii. [A book]
Zel'man, G. S.; Il'inskaya, T. N.
211pp. (1969) [Ru] Moscow: Pishchevaya promyshlennost'. Price 56 k.

This book, intended for specialists working in bakery plants, deals with the economic aspects of freezing and thawing. Chapters are: Theoretical basis of the freezing process; Storage of frozen products; Thawing; Cooling, freezing, storage and thawing of partially manufactured products; Quality of frozen goods; Equipment used for freezing, storing, packaging and thawing; Automation of production plants; and Economic aims in introducing freezing methods into existing plants. STI

762

[Macaroni product processing methods.] Tekhnologiya makaronnogo proizvodstva. [A book]
Nazarov, N. I.
398pp. (1969) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.96 rouble

The book deals with the present methods and equipment used in macaroni production in the USSR and elsewhere. The main chapters are: classification of macaroni products and equipment used; production flow sheets; raw material and its preparation; processing of the dough; moulding methods; basic equipment used in worm-type production; and production calculations. STI

763

[Technology and equipment for manufacturing macaroni products.] Tekhnologiya i oborudovanie

makaronnogo proizvodst, [A book]

Polyakov, E. S.
254pp. (1968) [Ru] Moscow: Pishchevaya promyshlennost' Price 48 k.

Macaroni production in the USSR, properties of macaroni products, their classification and production processes are discussed. Raw materials used are flour, eggs, milk, tomato puree and water. Dough treatment and the method of forming and dividing macaroni are described. Drying and stabilization methods are mentioned. One chapter deals with sorting and packaging. Raw material losses during production, driers, packaging plants, coolers, automatic packaging machines, metering equipment, conveyors and handling equipment are also dealt with. STI

FATS, GLYCERIDES, LIPIDS, OILS

764

[Rectification of natural fatty acids and higher fatty alcohols.] Rektifikatsiya prirodnnykh zhirnykh kislot i vysshikh zhirnykh spirtov. [A book]
Fainberg, E. E.
183pp. (1971) [18 ref. Ru] Moscow, USSR: Izdatel'stvo "Pishchevaya Promyshlennost'". Price 1.18 roubles

A short description of the process and equipment used for rectification of natural fatty acids and higher fatty alcohols is presented. The main chapters of the book are: Principles of the rectification process; Fatty acid rectification; Fatty acid rectification on one-column apparatus using direct steam; and higher fatty acid rectification. STI

765

Fatty acids and their industrial applications. [A book]

Pattison, E. S. (Editor)
xii + 390pp. (1968) [En] New York: Marcel Dekker Inc. Price \$ 11.50 [Fatty Acid Producers Council, Division of the Soap and Detergent Association, New York]

The characteristics of fatty acids and their use as industrial chemicals in the food, soap and detergent, cosmetic, rubber, pharmaceutical, textile and coatings industries, is considered in detail. The chapters of interest to the food chemist are: 'Fatty acids today and tomorrow' by E. S. Pattison (pp. 1-11); 'Raw materials for fatty acids' by D. L. Combs (pp. 13-20); 'Production of fatty acids' by R. H. Potts & V. J. Muckerheide (pp. 21-45, 35 ref.); 'General physical and chemical properties of fatty acids' by W. M. Budde (pp. 47-75); 'The applications of fatty acids in foods' by G. S. Knight & H. Lehman (pp. 259-81, 38 ref.); 'Handling industrial fatty acids' by J. L. Trauth (pp. 305-17); 'Tests and testing

methods' by N. O. V. Sonntag & S. J. Rini (pp. 319-52, 65 ref.); 'Synthetic fatty acids' by N. O. V. Sonntag & K. T. Zilch (pp. 353-68, 28 ref.). VJG

766

[**Biochemistry of triglycerides.**] Biokhimiya triglitseridov. [Book]

Vereshchagin, A. G.

308 pp. (1972) [1016 ref. Ru] Moscow, USSR: Izdatel'stvo Nauka. Price 2.32 r

The monography deals with the current position in lipid biochemistry. The main parts of the book deal with the methods of qualitative and quantitative analysis of triglycerides and fatty acids; crystallization; the present theories of triglyceride structure; composition of triglycerides in the more important livestock and vegetable fats and oils; and the biosynthesis of triglycerides. STI

767

[**Biochemistry and methodology of lipids.**] [Book]

Johnson, A. R.; Davenport, J. B. (Editor)

x + 578pp. ISBN 0 471 44430 8 (1971) [many ref. En] New York, USA, Wiley-Interscience. Price £14 [CSIRO Div. of Food Res., Sydney, Australia]

Chapters in this book include Lipoproteins, by R. W. Burley (pp. 85-106, 63 ref., containing a short section on lipoproteins of milk) and Ruminant lipids, by T. W. Scott (pp. 459-484, 55 ref.). DMK

768

[**Plant lipid biochemistry.**] [A book]

Hitchcock, C.; Nichols, B. W.

xiii + 387pp. ISBN 0 12 349650 0 (1971)

[Numerous ref. En] London, UK: Academic Press Inc. (London) Ltd. Price £6.50 [Unilever Res. Lab., Colworth House, Sharnbrook, Bedford, UK]

This book, volume 4 in the Experimental Botany International Series of Monographs, surveys the structure, distribution, metabolism and function of acyl lipids and fatty acids with special reference to algae and higher plants. It also refers to animal and microbial metabolism, but only for comparative purposes or where data on plants are absent.

Chapters are: Structure and distribution of plant fatty acids (pp. 1-42); Plant acyl lipids (pp. 43-58); The lipid and fatty acid composition of specific tissues (pp. 59-80); Distribution of individual fatty acids between lipid classes (pp. 81-95); Biosynthesis of plant fatty acids (pp. 96-175); The biosynthesis of acyl lipids (pp. 176-192); Lipolytic enzymes (pp. 193-200); Biological degradation of plant fatty acids (pp. 201-235); Lipid and fatty acid metabolism during organogenesis and senescence (pp. 236-262); The role of lipids in plant metabolism (pp. 263-278); and The analysis of plant lipids (pp. 279-305). A 33pp. bibliography is included. JA

769

[**Topics in lipid chemistry.**] [A book]

Gunstone, F. D. (Editor)

Vol. 1 ix + 451pp. (1970) [Numerous ref. En] London: Logos Press Ltd. Price 160s.

This book, the first in a series of review volumes, contains the following chapters: 'Cyclopropane and cyclopropene fatty acids', by W. W. Christie (pp. 1-49); 'Milk lipids', by W. R. Morrison (pp. 51-106); 'Structure determination of fatty esters by gas liquid chromatography', by G. R. Jamieson (pp. 107-59); 'Hydrogenation with homogenous and heterogeneous catalysts', by E. N. Frankel & H. J. Dutton (pp. 161-276); 'Optically active long-chain compounds and their absolute configurations', by C. R. Smith, Jr. (pp. 277-368); and 'Mass spectrometry of fatty acid derivatives', by J. A. McCloskey (pp. 369-440). A list is also given of books and review on the subject of lipids (pp. 441-46). BEPC

770

[**Topics in lipid chemistry. Volume 2.**] [A book]

Gunstone, F. D. (Editor)

Topics in Lipid Chemistry 2: ix + 313pp. ISBN 0 236 17646 3 (1971) [Numerous ref. En] London, UK: Logos Press Ltd. Price £8.00 [Dept. of Chem., Univ., St. Andrews, UK]

This is the second volume [see FSTA (1970) 2 10N406 for vol. 1] in a series dealing with physical and chemical aspects of long-chain fatty acids and their natural derivatives. Titles of reviews presented are: Ozonolysis, by E. H. Pryde & J. C. Cowan (pp. 1-98); Allylic halogenation and oxidation of unsaturated esters, by M. Naudet & E. Ucciani (pp. 99-158); Nitrogen and sulphur analogues of epoxy and hydroxy acids, by G. Maerker (pp. 159-206); Natural alkyl-branched long-chain acids, by N. Polgar (pp. 207-246); and Olefin reactions catalysed by transition metal compounds, by C. W. Bird (pp. 247-281). 2 appendices are: Books and reviews on lipids (pp. 283-286); and NMR spectra of fatty acids and related compounds, by F. D. Gunstone & R. P. Inglis (pp. 287-307). JA

771

[**Introduction to lipids.**] [A book]

Chapman, D.

vii + 141 pp. (1969) [76 ref. En] London: McGraw-Hill Publishing Co. Ltd. Price 36s. [Unilever Res. Lab., Welwyn, Herts, England]

This book aims to give a simple introduction for undergraduates and postgraduates at universities and other technical centres for an understanding of lipid molecules, to show their structure, synthesis and biosynthesis, and to show their biological relevance. A brief general discussion is included in the first chapter on the physical behaviour of lipid molecules, particularly in the presence of water. More detailed comments on the physical properties are also given in later chapters. The chapters

included are: 'General introduction' (pp. 1-18, 7 ref.); 'Fatty acids' (pp. 19-42, 16 ref.); 'Neutral lipids - glycerides, glyceryl ethers, cholesterol esters and waxes' (pp. 43-66, 10 ref.); 'Phosphoglycerides' (pp. 67-105, 17 ref.); 'Sphingolipids' (pp. 106-23, 14 ref.); 'Some glycolipids' (pp. 124-27, 6 ref.); 'The role of lipids in biology' (pp. 128-31, 6 ref.). A brief account of new proposals by an IUPAC-IUB commission on the nomenclature of lipids is included in an appendix. VJG

772

Surface-active lipids in foods. S. C. I. Monograph No. 32 [A book.]
United Kingdom, Society of Chemical Industry iv+173pp. (1968) [Numerous ref. En] London: Society of Chemical Industry

The following papers, with discussions, are presented from a symposium organized by the Food Group and the Oils and Fats Group of the Society of Chemical Industry and held in March 1968: 'Molecular aggregation in phospholipid dispersions' by L. Saunders (pp. 3-7); 'Structure of emulsifier-water phases' by K. Larsson (pp. 8-21); 'Effects of emulsifiers on the crystallization of triglycerides' by M. van den Tempel (pp. 22-33); 'Evaluation of some properties of membrane lipids in model systems' by J. de Gier, R. A. Demel and L. L. M. van Deenen (pp. 39-49); 'Plant lipids: their structure and function' by B. W. Nichols (pp. 50-59); 'Mechanism of promotion of emulsification' by G. S. Hartley (pp. 60-66); 'Surface-active lipids in milk and milk products' by W. R. Morrison (pp. 75-91); 'Lipoproteins and lipids of egg yolk' by N. H. Tattlee and W. H. Cook (pp. 92-107); 'Surface-active lipids in chocolate' by T. L. Harris (pp. 108-22); 'The role of surfactants in baked foods' by W. H. Knightly (pp. 131-57); 'Importance of physical state in applications of fat-derived emulsifiers' by J. J. Wren (pp. 158-70). AB

773

[Functional properties of fats in foods.] Fette als funktionelle Bestandteile von Lebensmitteln. Prabucki, A. L.
272pp. (1973) [De & En] Zurich, Switzerland, Forster Verlag AG. Price FS. 45

This book is a compilation of papers delivered at a course on 'Fats as functional constituents of foods', held in Zurich in the autumn of 1971. Included are: Breakdown and chemical composition of the fatty fractions of foods, by A. L. Prabucki (pp. 11-25, De, 19 ref.); Stability of the fatty fractions of foods - chemical reactions, by A. Fricker (pp. 27-46, De, 32 ref.); Quality retention and spoilage of the fatty fraction of foods - enzymic reactions, by A. Purr (pp. 47-80, De, 108 ref.); The latest methods of fat analysis, by H. Hadorn (pp. 81-115, De, 30 ref.); Fats as aroma precursors, by G. Ohloff (pp. 119-132, De, 36 ref.); Carotenoids as food colours, by H. Kläui (pp. 133-169, En, 123

ref.); Rheological properties of fat-containing foods, by B. Drake (pp. 171-192, En, 53 ref.); Preparation and properties of fractionated fats, by J. H. M. Rek (pp. 193-201, En, 27 ref.); Technological function of fats in comminuted meat products, by F. Wirth (pp. 205-217, De, 14 ref.); Physical aspects of milk fat in dairy products, by J. Hidalgo (pp. 219-233, En, 14 ref.); and Importance of fats in the manufacture of bakery products, by A. Menger (pp. 235-249, De, 26 ref.); Cocoa butter and cocoa products, by J. Kleinert (pp. 251-271, De, 7 ref.). HBr

774

Fats, oils and waxes. [A book]

Tooley, P.
182pp. SBN 0 7195 2027 4 (boards edition) 0 7195 2028 2 (limp edition) (1971) [En] London, UK: John Murray (Publishers) Ltd. Price £2.25 [Dept. of Chem., St. Osyth's Coll., Clacton, Essex, UK]

This book, the 2nd in the series Chemistry in Industry, is intended primarily as a source of background material for science teachers. Chapters are: Introduction (pp. 1-15); Fat technology (pp. 16-55); Detergents and polishes (pp. 56-106); Cosmetics (pp. 107-140); and Perfumery (pp. 141-172). Topics covered in the fat technology section include: oil milling, extraction of animal fats, fat refining, hardening of fats, and edible fats (butter, margarine, cooking fats). The book contains numerous photographs and a subject index. JA

775

[Technology of fats and oils.] Technologie tuku I. [A book]
Zajic, J.; Forman, L.; Pokorný, J.
265pp. (1967) [Numerous ref. Cs] Prague, Czechoslovakia: SNTL. Price 21.-Scs

This book suitable for university students, discusses: Raw materials for the production of fats and oils; raw materials handling; fats and oils production; hydrogenation; production of margarines and edible fats. STI

776

[Handbook on the production of edible animal fats.] Spravochnik po proizvodstvu pishchevykh zhivotnykh zhirov. [Book]
Lieberman, S. G.; Petrovskii, V. P.
487pp. (1972) [130 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.69 roubles

This book contains the following chapters: Physical and chemical properties, composition and nutritional value of fats (pp. 3-30); Characteristics of individual animal fats (pp. 30-56); Raw materials (pp. 56-105); Transport of raw materials and fats (pp. 105-135); Treatment of raw material for fat rendering (pp. 135-149); Edible fat manufacture,

yield and kinds of fats (pp. 149-259); Processing of fats after rendering (pp. 259-343); Production of oleomargarine and fats, refining, hydrogenation and re-esterification of fats (pp. 344-367); Production of bone fats (pp. 367-430); and Packaging, labelling, quality control and storage of fats (pp. 430-487). STI

777

[**Biochemistry of vegetable fats.**] *Biochemia tłuszczow roślinnych.* [A book] Trzebny, W. 210pp. (1969) [Pl] Warsaw: Państwowe Wydawnictwo Rolnicze i Lesne. Price 32 zł.

This book includes the following sections: Characteristics and classification of vegetable fats; Fatty acids from vegetable fats - simple and complex saturated and non-saturated acids; Biosynthesis of fatty acids, determination of glyceride structure; Systems of glycerides of vegetable origin; Biosynthesis of vegetable glycerides; Phosphatides, phytosterols, trivalent terpenes, carbohydrates; and Vegetable waxes. STI

778

[**Hydrogenation of vegetable fats.**] *Gidrirovani rastitel'nykh zhirov.* [Book] Sokol'skii, D. V.; Zhubanov, K. A. 180pp. (1972) [174 ref. Ru] Alma-Ata, USSR, Izdatel'stvo Nauka. Price 1.37 r

This book contains the following chapters: General information on the mechanism of fat hydrogenation (pp. 3-41); Continuous fat hydrogenation using suspended catalysts and intensive agitation (pp. 41-65); Fat hydrogenation using stationary catalysts (pp. 65-99); Catalysts used in fat hydrogenation (pp. 99-150); and Some aspects of the theory of fat hydrogenation using catalysts (pp. 150-171). STI

779

[**Sanitation and microbiological control in margarine manufacture.**] *Sanitarnyi rezhim i mikrobiologicheskii kontrol margarinovogo proizvodstva.* [A book] Koshlakova, K. 66 pp. (1970) [20 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya promyshlennost'. Price 0.16 rouble

The booklet is intended mainly for workers engaged in margarine manufacture and deals with the following subjects: undesirable microflora and its elimination; personal hygiene of employees; equipment washing; disinfection; use of detergents and their characteristics; organization of laboratory work and duties of the plant bacteriologist; microbiological control of raw materials and of equipment and apparatus. STI

780

[**Margarine; an economic, social and scientific history, 1869-1969.**] *Honderd jaar margarine; 1869-1969.* [A book] Stuijvenberg, J. H. van 353pp. (1969) [Numerous ref. Nl] [The Hague, The Netherlands: Martinus Nijhoff]

This book deals with the economic, social and scientific history of margarine. Chapters included are: 'Industrial development', by W. G. Hoffman (pp. 1-28); 'Raw materials', by K. E. Hunt (pp. 29-75); 'Technology and production', by R. Feron (pp. 76-119); 'Scientific research', by J. Boldingh (pp. 120-82); 'Aspects of nutrition and nutritional value', by A. C. Frazer (pp. 183-230); 'Marketing', by R. D. Tousley (pp. 231-84); 'Aspects of government intervention', by J. H. van Stuijvenberg (pp. 285-334). The book contains many illustrations and a 16 pp. subject index. MDB

781

[**Economics, organisation and planning in the fat and oil manufacturing industry.**] *Ekonomika, organizatsiya i planirovaniye v maslozhirovoi promyshlennosti.* [A book] Galushkina, N. A.

256 pp. (1969) [Ru] Moscow, USSR: Pishchevaya promyshlennost'. Price 56 k.

Contents: Main stages in the development of the fat and oil producing ind. Role of this ind. in the national economy and the tasks set in the five-year plan. Organisation of factory management. Sources of raw materials. Basic production funds. Technical progress in this branch. Organisation of production, structure of production, production cycle and organisation of the primary and secondary branches of production. Circulating capital. Organisation of work and wages. Characteristics, structure and norms, growth of productivity, planning and organisation of profits. Production plan and its implementation, plan to increase productivity, material and technical supplies, profits, growth, profitability and distribution of the funds and their planification. Planning of the basic funds. Financial planning in the enterprise. STI

782

Edible oils and fats. [A book] Bednarczyk, N. E.

Food Processing Review, Noyes Development Corporation 5: 404pp. (1969) [En] Park Ridge, New Jersey, USA: Noyes Development Corp. Price \$35.00

This book describes in detail a wide variety of recent process developments for producing edible oils and fats, based on US patent literature since 1960. The book serves a double purpose in that it supplies detailed technical information and can be used as a guide to the US patent literature in this field. Chapters are: 'Shortenings' (pp. 1-90); 'Margarine and spreads' (pp. 91-164); 'Salad oils, mayonnaise and emulsified dressings' (pp. 165-200); 'Frying and cooking oils' (pp. 201-24); 'Hard butters' (pp. 225-60); 'Oil processing' (pp. 261-86); 'Antioxidants and stabilizers' (pp. 287-307); 'Emulsifiers and emulsions' (pp. 308-50);

'Peanut butter and spreads' (pp. 351-77); 'Chocolate products' (pp. 378-97). The table of contents is arranged in such a way as to serve as a subject index. Other indices by company, inventor and patent number are included. JA

783

Food oils and their uses. [A book]

Weiss, T. J.

vii+224pp. ISBN 0 87055 093 4 (1970) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co., Inc. Price \$16.50 (US) \$17.50 (Foreign). [E. Util. Res. & Development Div., Dairy Products Lab., USDA, Washington, DC, USA]

Abridged, technical information on fat and oil products and their uses is given, under the headings: Chemical and physical properties of fats and oils; Commercial oil sources; Basic processing of fats and oils; Chemical adjuncts; Shortening - introduction; Bakery shortenings; Frying shortenings and their utilization; Household shortenings; Margarine; Mayonnaise and salad dressings; Peanut butter; Confectionery coatings; and Imitation dairy products. A subject index is included. JN

784

Crop and product digests. No. 1. Oils and oilseeds.

[A book]

Godin, V. J.; Spensley, P. C.

xxi+170pp. (1971) [Numerous ref. En] London, UK: Tropical Products Institute Price £0.75.

The aim of this book is to provide information to aid in selection of oilseed crops for cultivation in a given set of geographic and economic circumstances. It should also prove useful for general reference purposes. The data given are presented in a concise form and include growth requirements, planting and harvesting procedures, products and their uses, processing, yields, and trends in world supply, demand and prices. The information is given under the first common name for each crop. Other names are cross-referred to this one in the index. Oilseed crops covered are: Babassu palm, Borneo tallow nut, castor oil plant, Chinese vegetable tallow, cocoa, coconut, cohune palm, cotton, crambe, Ethiopian mahogany, German sesame, grape, groundnut, hemp, illipe, kapok, linseed flax, maize, neem, niger, oil palm, oiticica, olive, perilla, physic nut, poppy, rape, rice, safflower, sesame, shea, soybean, sunflower, tea, tobacco, and tung. JA

785

Vegetable oils and oilseeds. 18. A review of production, trade, utilization and prices relating to groundnuts, cottonseed, linseed, soya beans, coconut and palm oil products, olive oil and other oilseeds and oils. [A book]
Commonwealth Secretariat, Commodities Division.

iv+267pp. (1968) [En] London: Commonwealth Secretariat. Price 40s

The aim of this annual review is to present up-to-date summaries of production, international trade and consumption for vegetable oils and oilseeds, special reference being made to the part played by Commonwealth countries. This edition gives full production data up to 1966-67 and trade data to 1966, with provisional tabulated information for a further yr where available. Sections are: 'General review' (pp. 1-33); 'Vegetable oils and their uses' (pp. 34-35); 'Groundnuts' (pp. 36-57); 'Soya beans' (pp. 58-76); 'Cottonseed' (pp. 77-94); 'Rapeseed' (pp. 95-105); 'Sunflower seed' (pp. 106-17); 'Sesame seed' (pp. 118-25); 'Olive oil' (pp. 126-35); 'Coconut palm products' (pp. 136-52); 'Oil palm products' (pp. 153-74); 'Linseed' (pp. 175-87); 'Castor seed' (pp. 188-98); 'Tung oil' (pp. 199-205) and 'Miscellaneous oilseeds and vegetable oils' (babassu, cameline, cocoa butter, cohune, corn, crambe, edible nut oils, grape seed, hemp seed, illipe, kapok, macadamia, mafurra, mowra, niger seed, oiticica, perilla, poppy seed, pulghere, rice bran, safflower, shea, stillingia, teaseed, tobacco seed) (pp. 206-18). Appendices included are: 'New supplies of vegetable oils' (pp. 219-28); 'Margarine, compound cook fat and soap' (pp. 229-41); 'Marine oils' (pp. 242-48); 'Oilcake supplies in principal consuming countries' (pp. 249-55); 'Vegetable oils and oilseeds in the European Economic Community' (pp. 256-62) and 'Import duties in certain countries' (pp. 263-67). JA

786

Structure and utilization of oil seeds. [A book]

Vaughan, J. G.

xv+279pp. SBN 412 09790 7 (1970) [Numerous ref. En] London, UK: Chapman & Hall Ltd. Price £5 [Queen Elizabeth Coll., Univ., London, UK]

This book examines, describes and illustrates the macroscopic and microscopic structure of ~200 types of oilseeds from ~50 different families. The more important structural features are also shown in photomicrographs. Background information on industrial utilization is also included. This book should be an important reference book to the taxonomist and to the industrial analyst concerned with the identification of these seeds and their residues, especially as apparently few comprehensive works on this topic have appeared since the 1930's. AL

787

[Econometric analysis of the market for tropical oils.] Analyse econometrique du marches des oleagineux tropicaux. [A book]

Commission des Communautés Europeennes v+417pp. (1970) [Fr] Brussels, Belgium: Author

This extensive economic survey comprises two major sections, each supported by detailed tabulated statistics. The first section reviews world market prices and the development of world

supplies during the period 1953-1966. Details are given of market exchange quotations, export prices from major producing countries, import prices at European ports; prospects for world production, exports from developing countries are discussed; and forecasts are given of supply and demand and trends in world trade up to 1975. Individual products covered (with separate data for food and industrial uses) are: groundnut, coconut, palm, soya, cottonseed, rapeseed, sunflower, maize, sesame and olive oils; tallow lard; whale oil, fish oils; butter and margarine. The second section reviews consumption and utilization within each of the six EEC countries and discusses the effects of various social, occupational, economic and political factors, together with interactions between butter and margarine prices and consumption. Differences in detailed composition vary considerably between the different countries but there seems to be a general overall trend towards increasing use of soya, rapeseed, sunflower, maize and olive oils with a slow reduction in consumption of coconut and palm oils and of marine oils; these changes are partly linked with market prices. ELC

788

Castor, sesame and safflower. [A book]

Weiss, E. A.
xxxiii + 901pp. ISBN 0 249 44021 0 (1971) [1698 ref.
En] London, UK: Leonard Hill Books. Price £16.00

This book should provide a useful reference source for all persons concerned with tropical and sub-tropical agriculture, in particular those connected with development schemes on national and local scales. The book is divided into 3 main sections, each containing several chapters: Castor (pp. 1-308); Sesame (pp. 309-525); and Safflower (pp. 527-744). A concluding section contains the following chapters which are relevant to all 3 crops: Intercropping and rotations (pp. 747-760) and Oilseed processing (pp. 761-792). Chapters in the 3 major sections cover in detail the following topics: history, world production and consumption, general characteristics of the plant (including morphology, growth and composition), breeding and varieties, climate, soils, fertilizers and manures, cultivation, harvesting, irrigation, pests and diseases, and uses and specifications (which covers use as food for humans). An extensive bibliography (pp. 802-865), conversion tables and a subject index are included. The book contains a large number of photographs, figures and tables. JA

789

Fish oils. Their chemistry, technology, stability, nutritional properties and uses. [A book]

Stansby, M. E.
x + 440pp. (1967) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co. Inc. Price \$20.00
[Food Sci. Pioneer Res. Lab., U.S. Bureau Commercial Fisheries, Seattle, Washington, USA]

This book, the 1st to appear giving comprehensive treatment of fish oils on a world-wide basis,

presents information on chemical reactions, nutritive properties, composition, methods of analysis, manufacturing and refining procedures and uses and application of fish oils. The book is intended as a general reference for a wide group ranging from students to specialists. The book is divided into 6 sections containing the following chapters: 'Fatty acid composition' by E. H. Gruger, Jr.; 'Classes of lipids in fish' by D. C. Malins; 'General Analytical methods' by M. E. Stansby; 'Gas-liquid chromatography' by C. R. Houle; 'Chromatographic methods' by D. C. Malins & J. C. Wekel; 'Fractionation methods' by H. Schlenk & D. M. Sand; 'Reactions of the carboxyl group' by E. J. Gauglitz, Jr.; 'Reactions of the ethylenic bonds' by E. H. Gruger, Jr.; 'General deterioration reactions' by W. O. Lundberg; 'Deteriorative changes in fish oils' by A. Banks; 'Antioxidants' by H. S. Olcott; 'Odours and flavours' by M. E. Stansby; 'Production of fish oil' by G. M. Pigott; 'Manufacture of fish-liver oil' by L. Aure; 'Processing of fish oils' by S. S. Chang; 'Industrial use of fish oils' by H. Fineberg & A. G. Johanson; 'Use of fish oils in margarine and shortening' by J. Hannewijk; 'General industrial and potential uses of fish oils' by J. A. Dyer; 'Misconceptions about nutritional properties of fish oils' by M. E. Stansby; 'Liquid metabolism in fish' by J. F. Mead & M. Kayama; 'Fish oils as a source of essential fatty acids' by E. Aaes-Jorgensen; 'Hypocholesterolemic effects of marine oils' by J. J. Peifer. Section 6 gives details of the fishing industry in North America, South America, Europe, Japan, South Africa and South West Africa. VJG

790

[Production of fish oil and meal.] Zhiromuchnoe proizvodstvo. [A book]

Bodrov, V. A.
88pp. (1970) [Ru] Moscow, USSR: Pishchevaya Promyshlennost'. Price 0.19 rouble

Principles of fish oil rendering and fish meal production are discussed. Processing methods and equipment used on modern trawlers and in fish processing factories are described. Production technology and quality control methods are also covered. STI

MILK & DAIRY PRODUCTS

791

Dairy terms. Suiweltermes. [Book]

South Africa, Republic of, Departement van Nasionale Opvoeding
xiii + 388pp. (1972) [Af, En] Pretoria, South Africa, Government Printer Price R3.40

This useful dictionary compiled by the Terminology Section of the Language Services Bureau in collaboration with the Dairy Industry Control Board and the Department of Agricultural Technical Services includes, in addition to dairying

and milk processing terms, terms relating to the handling, distribution, marketing and control of dairy products, the housing, feeding and treatment of milch cows, the prevention of stock diseases, and the dairy machinery used in production processes and other techniques. A large number of egg terms are also included. ADL

792

Milk facts. [Book]

USA, Milk Industry Foundation

29pp. (1973) [En] Washington, DC, USA

This booklet, based on statistical information supplied mainly by the US Department of Agriculture, includes tabulated data on fluid milk product sales, sales of speciality dairy products, milk supply and distribution, utilization of milk supply, Cottage cheese production and sales etc., in the USA over various periods up to 1972. Data are also given on per capita production and consumption of milk and dairy products, by countries, and on milk cows, production and income and dairy products manufactured, for the various US states. ADL

793

[National Milk Annual.] Annuaire National du Lait. [Book]

Anon.

23rd Ed. 732pp. (1973) [Fr] Paris, France, Les Editions Comindus

This directory on the French dairy industry is divided into 4 parts. Part I deals with national professional organizations, dairy legislation, dairy education, and labelling of cheese; part II covers production and processing, listing local professional organizations and processors, arranged alphabetically and by product, in each of 8 geographical regions into which the country is divided for this purpose; part III gives an index of suppliers to the dairy industry; and part IV lists agents, wholesalers, exporters etc. FL

794

Standard methods for the examination of dairy products. [Book]

Hausler, W. J. (USA, American Public Health Association) (Editor)

13th edition xvi+347pp. (1972) [many ref. En] Washington, DC, USA, American Public Health Association Price \$13.50

In this new edition, the structure of the book has been changed in that culture media and screening tests for abnormal milk, that were dealt with in the 12th edition, are now presented as chapters. The other 19 chapters are basically the same as those

listed for the previous edition [see Walter, W. G., Editor 12th ed. 1967] revised and enlarged where necessary. Chapter 3, which was previously restricted to the sampling of milk and cream, has now been extended to include sampling procedures for all dairy products, and hence sampling methods are no longer included in chapters dealing with specific products. Appendices in this edition contain supplementary microbiological and chemical methods which do not have the status of 'standard methods'. CDP

795

Quality improvement of milk and milk products. Qualitätsbewertung von Milch und Milcherzeugnissen. [Book]

Bruncke, R.

429pp. (1971) [20 ref. De] Leipzig, German Democratic Republic, VEB Fachbuchverlag. Price M 28

In 5 chapters details are given on methods of quality control of milk and milk products, evaluation schemes, descriptions of quality defects and methods of their prevention. The book covers butter and cream (pp. 12-72); sterilized milk products, condensed and evaporated milk, lactose, ice cream products, dried milk products (pp. 73-108); cheese and processed cheese (pp. 109-280); liquid milk, yoghurt, kefir, buttermilk, and whey (pp. 281-335); and white cheese, Cottage cheese, quarg and similar products (pp. 336-389). In addition standards which are legal in the German Democratic Republic are listed and a glossary of >100 German technical terms is given. EL

796

[Dairy chemistry and technology. I. Raw milk, market milk and preserved milk.] Zarys chemii i technologii mleczarstwa. I. Mleko surowe, spozywce, konserwy mleczone. [Book]

Pijanowski, E.

513pp. (1971) [many ref. Pl] Warsaw, Poland, Wydawnictwo Rolnicze i Lesne. Price zl 32

The book includes the following chapters: Economic and scientific aspects of dairying (pp. 5-40); General characteristics of milk (pp. 40-78); Main components of milk (pp. 78-122); Trace elements in milk (pp. 123-161); Microbiology of milk (pp. 162-196); Hygiene and sanitation in raw milk production (pp. 197-253); Pasteurized milk production (pp. 254-320); Special methods of raw milk treatment (pp. 321-339); Keeping quality prolongation by means of dehydration (pp. 390-485). STI

797

[Organization and planning of manufacture in dairy plants.] Organizatsiya i planirovanie proizvodstva na predpriyatiakh molochnoi promyshlennosti.

[Book]

Danchenkov, M. B.
391pp. (1972) [Ru] Moscow, USSR, Pishchevaya Promyshlennost'. Price 1 r

The book deals with characteristic features of socialist industrial enterprises and presents the organizational structure of dairy plants. Principals of scientific management of main processing departments as well as of auxiliary departments are discussed. The main chapters include: organization and planning of manufacturing processes generally (pp. 5-19); organization of managerial activities, production and labour in dairy plants (pp. 20-222); planning of production in individual plants (pp. 223-285). STI

798

Methods for production of high-quality raw milk.

[Book]

Flake, J. C.; Parker, A. E.; Smathers, J. B.; Saunders, A. K.; Marth, E. H. (International Association of Milk, Food, and Environmental Sanitarians) (Editors)
73pp. (1972) [many ref. En] Shelbyville, Indiana, USA. Price \$2.00 [Evaporated Milk Ass., Washington, DC, USA]

This summary of 15 annual reports (1955-1970) of the International Association of Milk, Food and Environmental Sanitarians Dairy Farm Methods Committee is divided into 6 sections: milking management; dairy cattle housing, milking parlours and milhouses (including a chapter on conc. feed storage); bulk handling of milk (including sampling from farm bulk tanks and collection tankers); cleaned-in-place milk handling systems, water quality, and plastics; residues and milk quality (sediment, antibiotics, pesticides and miscellaneous contaminants); and education. CDP

799

[Biochemistry of milk and milk products.]

Biokhimiya moloka i molochnykh produktov.

[Book]

Dudnikov, A. Ya.; Dudnikov, Yu. A.
162pp. (1972) [Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost' Price, 0.29r

Major sections in this book deal with milk (composition and physical properties and factors affecting them), biochemical and physicochemical processes occurring during the manufacture of cheese and cultured milk products, and chemical and physical aspects of market milk, butter, concentrated milks and whey products production. FL

800

[Milk and milk products as a vitamin source.]

Moloko i molochnye produkty kak istochnik vitaminov. [Book]

Davidov, R. B.; Gul'ko, L. E.; Kruglova, L. A.;

Faingar, B. I.

184pp. (1972) [many ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.98r

This monograph, intended for dairy scientists and technical personnel, presents a detailed review of the results of studies into the vitamin composition of cows' milk and milk products, carried out over many years at the Timiryazev Agricultural Academy. The publication is divided into 2 chapters dealing with fat- and water-soluble vitamins respectively. Each vitamin is dealt with separately, the information covering the effects of major factors on its content in milk and milk products as well as its actual levels in individual products. Data on vitamin contents of ewes', goats' and mares' milk are also given. FL

801

[Personnel structure in the dairy industry on 31st December, 1970. I. Results for the Federal Republic of Germany.]

Personalstruktur der Molkereiwirtschaft. Stand: 31. Dezember 1970. I. Ergebnisse im Bundesgebiet. [Book]

Federal Republic of Germany, Bundesministerium für Ernährung, Landwirtschaft und Forsten
liii+183pp. (1972) [De] Hildesheim, Verlag Th. Mann oHG, Federal Republic of German Price DM 5.

Details are tabulated of the composition, training and age of dairy personnel in the Federal Republic of Germany as a whole (the individual Länder will be covered mainly in Part II). Of 48 187 persons (>3% less than 1967) employed in the country's 1274 dairy undertakings, 8501 were managerial and technical personnel (a drop of 1%). The average number of employees/undertaking was 38 (ranging from 14 in Schleswig-Holstein to 72 in the Rhineland-Palatinate), including 7 managerial and technical staff. The ratio of the latter group to other staff was highest in hard cheese factories (1:2) and lowest in specialized undertakings such as preserved milk factories. The proportion of male employees remained at 71%, but that of employees aged ≤35 yr fell from >35% in 1967 to 30%. Only 123 persons began apprenticeship in 1971 as against 600 in 1955. ADL

802

[Milk chemistry.] Zarys chemii mleka. [Book]

Budslawski, J.

332pp. (1971) [Pl] Warsaw, Poland, Panstwowe Wydawnictwo Rolnicze i Lesne. Price 43 zl.

This book is meant as textbook for dairy technology students. Its main chapters deal with: formation of milk in the udder; composition of milk; properties of milk and factors affecting them; liquid milk products; concentrated and dried milk products; cream, ice cream and butter; cheeses, casein and lactose. STI

803

[Treatment of milk for margarine manufacture.]

Podgotovka moloka dlya proizvodstva margarina. [A book]

Mazyukevich, V. A.

55pp. (1971) [Ru] Moscow, USSR: Izdatelstvo Pishchevaya Promyshlennost'. Price 0.17 rouble

The booklet contains the following chapters: milk composition; changes in milk composition; requirements on milk quality for margarine manufacture; requirements on dried milk quality; treatment of milk and equipment used; milk fermentation; use of unfermented milk with citric acid; treatment of whey for margarine manufacture according to Kozin-Baribrus; use of synthetic flavourings. STI

804

Milk packaging. International techno-economic survey. [A book]

Jones, A.

173pp. (1972) [En] Bickley, Kent, UK: Wolpert and Jones (Studies) Ltd. Price UK £58.00, Overseas £62.00

This publication gives up-to-date detailed technical and economic information on the packaging of market milk, covering the available package types, the position of packaging in different countries and factors which affect the selection of the package, and market development. It is divided into 3 chapters, the 1st one (pp. 6-69) deals with materials, equipment, package types etc. under sub-headings glass, plastics, cartons, sachets, plastics bottles, thermoforming and paper vs. plastics. The 2nd chapter headed "international survey" (pp. 70-129) gives data on milk consumption, types of package used and various other related aspects for a number of European and overseas countries and geographical areas. The last chapter entitled "selection influences" (pp. 130-164) deals with different aspects of filling, including types of fillers, filling accuracy and filling machines, economics of packaging, package disposal, water in dairies, metal cans, and vending and store selling. A reference list with addresses of companies manufacturing packaging equipment etc. and of various organizations is included. FL

805

[Milk treatment and care of equipment.]

Obrabotka moloka i ukhod za molochnym oborudovaniem. [A book]

Obukhov, P. A.

166pp. (1971) [Ru] Moscow, USSR: Rossel'khozizdat. Price 0.33 rouble

This manual for dairy farm personnel on production of high quality milk consists of the following main chapters: The nutritive value of milk (pp. 5-7); Factors influencing the hygienic quality of milk (pp. 7-14, milk microflora); Treatment, storage and transport of milk (pp. 14-95, filtration, cooling, pasteurization, separation on farm); Detergents and sterilizers (pp. 95-118); Methods of

hygienic maintenance of milking equipment on farms (pp. 118-139, portable equipment, pipeline installations, cans, tanks, water heaters, steam generators); Quality control of milk (pp. 139-165, chemical, physical, bacteriological on farm). SKK

806

Dairy produce. A review of production, trade, consumption and prices relating to butter, cheese, condensed milk, milk powder, casein, eggs and egg products. [A book]

Commonwealth Secretariat

ix + 128pp. ISBN 0 85092 045 0 (1972) [En] Marlborough House, London, UK: Author. Price £2.00

Trends in the production of milk and milk products in major producer countries, market developments, prices and pricing policies, and consumption, are reviewed and illustrated by tabulated statistics under the following headings: milk production and utilization (pp. 9-19); butter (pp. 20-43); cheese (pp. 44-59); condensed milk (pp. 60-68); milk powder (pp. 69-83); and casein (pp. 84-89). A section on eggs and egg products (pp. 90-98) is included, but margarine figures no longer among the commodities reviewed. In the notes on the EEC (appendix I, Government measures affecting dairy produce in certain countries), the monetary unit used in all quotations of prices (target, intervention, threshold), rates of export subsidy and import levies now is the unit of account. [See FSTA (1969) 1 10D556 for previous review.] NdeV

807

Code of practice for assessment of milk quality. [A book]

United Kingdom, Joint Committee of the Milk Marketing Board & the Dairy Trade Federation. 2nd Edition 73pp. (1972) [En] Thames Ditton, Surrey, UK: Author. Price £1.00

This revised code of practice has been laid out in a new format in 2 main parts. Green pages contain instructions for quality control which are mandatory for the purposes of Milk Marketing Board Scale Conditions, Part II. White pages, which are interleaved with the relevant sections of the mandatory part, contain supplementary advice on test procedures. Additional or revised sections incorporated in the 2nd edition pertain to bulk tank sampling, hygiene testing, tests for blood, fat and antibiotics in milk, recording and reporting of results, functions of the Liaison Chemist Service, and sampling for the Brucellosis Testing Scheme. CDP

808

[Process control instrumentation in the dairy

industry.] Pribory tekhnologicheskogo kontrola v molochnoi promyshlennosti. [A book]
Vainberg, A. Ya.

343pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.41 roubles

This well-illustrated book deals in considerable detail with instruments for the control and measurement of technological factors in dairy processing, including the following: pressure and vacuum; temp.; product level in vessels; flow rate and weight; metering of liquid products; contamination (mechanical, bacteriological, radioactivity) of products and air; viscosity, consistency and density; qualitative and quantitative analyses of products; moisture content; concentration of solutions; contents of proteins and butterfat; and pH and acidity. The book is intended for specialists in the dairy industry. FL

809

[Principles of bacteriology and hygiene of milk and dairy products.] Osnovy mikrobiologii i gigeny moloka i molochnykh produktov. [A book]
Koroleva, N. S.

159pp. (1971) [12 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.23 rouble

The book is divided into 2 parts dealing with microbiology and sanitation in the dairy industry. The main chapters of the book are: general microbiology; special microbiology; laboratory investigations (including laboratory equipment, media preparation, main methods used); determination of the principal groups of microorganisms in milk and dairy products; microbiological control; infection and immunity; and diseases originating from milk and milk products. STI

810

Milk delivery and transport. [A book]

Käo, V.

30pp. (1971) [En] Tallin, Estonian SSR: Min. of the Meat & Milk Ind.

811

Correspondence Course No. 101: Market Milk. [A book]

Kroger, M.

200pp. (1971) [En] University Park, Pennsylvania, USA: Pennsylvania State University

15 lessons give a brief outline of production statistics, milk production of the farm, various milk plant operations such as pasteurization, homogenization and sanitation, quality control, and processing of chocolate milk and cream products. AB

812

[Testing regulations. 1969. Quality tests for milk and dairy products.] Prüfungsbestimmungen 1969. Qualitätsprüfungen für Milch und Milcherzeugnisse. [A book]

Germany, W., Deutsche Landwirtschafts-Gesellschaft

118pp. (1969) [De] Frankfurt, W. Germany: Author

This booklet, issued by the Marketing Section of the DLG, lays down specific testing and evaluating procedures for the following categories of dairy products: certified milk; heated liquid milk; milk beverages and cultured milk products; whipping cream; long-life milk products; casein; ice cream; butter; retail butter packs; cheese, cheese spreads, processed cheese and processed cheese products; cheese in retail packs; and fresh cheese and quarg in retail packs. A further section covers the advertising efficacy of the various packages. HBr

813

[The dairying industry in Italy.] L'industria del latte in Italia. [A book]

Ferrari, P.

638pp. (1971) [Numerous ref. It] Piacenza, Italy: Camera di Commercio, Industria, Artigianato e Agricoltura

An historical account is first given of the dairying industry before the unification of Italy in 1870 and its development into this century, through 2 world wars and the depression. Most of the book is devoted to a detailed account with statistics of the period since 1950 in the context of the world and European Economic Community dairy situation. Some of the present difficulties in Italy are highlighted, such as the small average throughput of the numerous dairy plants. The book is illustrated, is well provided with tabulated statistics, but has no subject index. JMD

814

[Separation in dairy industry.] Separirovanie v molochnoi promyshlennosti. [A book]

Lipatov, N. N.

399pp. (1971) [289 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 2.04 roubles

In this book written for technicians and scientific workers in dairy industry, individual chapters deal with: design of modern dairy separators; physical and chemical problems of milk separation; laws governing separation; separation of liquids and individual fractions; and economic problems. STI

815

[New techniques in the dairy industry and dairy equipment.] Nova tehnika v mlckarenskem

prumyslu a svetove parametry mlekarenskych stroju. [A book]

Lukas, A.

131pp. (1970) [15 ref. Cs] Prague,

Czechoslovakia: CAZ-VUPP Stredisko

Technickych Informaci Potravinarskeho Prumyslu

After outlining recent major trends in milk processing and dairy equipment throughout the world, the author deals with specific manufacturing fields covering the production of market milk and liquid milk products, butter, cheese, ice cream and concentrated milk products, and the processing of milk by-products. A survey of modern equipment for use in different dairy processes is given. The book is intended for personnel engaged in dairy planning and development, and for students. FL

816

[Amendments to the ordinance on milk products.]

Verordnung zur Änderung der Verordnung über Milcherzeugnisse. [A book]

Loeper, H. F. von

26pp. ISBN 3 7862 0007 6 (1971) [De]

Hildesheim, W. Germany: Verlag Th. Mann OHG

See FSTA (1971) 3 RU554.

817

[Salt tolerance of local strains of lactic acid bacteria (In "Proceedings of Inter-University Dairy Conference".)] In "Sbornik dokladov

mezhdvusooskoi konferentsii po molochnomu delu". Dilanyan, Z.; Magak'yan, D.

pp. 301-304 (1971) [10 ref. Ru] Erevan, USSR:

Izdatel'stvo Aiastan [Erevanskii Zoovet. Inst., USSR]

The tolerance to salt of 36 local strains of lactic acid bacteria (*Streptococcus thermophilus*, *Str. cremoris*, *Str. lactis*, *Lactobacillus bulgaricus* and *L. casei*) was assessed from their capacity to coagulate sterile milk with 2, 3, 4 or 5% NaCl over periods of up to 48 h. Of 12 strains of lactobacilli 2 were very sensitive, coagulating milk with 2% salt after 48 h whilst the remaining exhibited generally considerable tolerance. 8 strains of *Str. lactis* and *Str. cremoris* were most salt tolerant, producing coagulum of normal consistency at 4-5% NaCl concn.; *Str. thermophilus* strains were least tolerant. The importance of salt tolerance of lactic cultures for the manufacture of pickled cheese is emphasized. FL

818

[Dairy kitchens and rational organization of feeding of children.] Molochnaya kukhnya i organizatsiya ratsionalenogo pitaniya detei. [A book]

Startsev, I. A.; Ott, V. D.

235pp. (1971) [Ru] Kiev, USSR: Izdatel'stvo Zdorov'e. Price 0.76 rouble.

Recommendations for feeding of children,

particularly babies, are given and preparation of meals for healthy and sick babies is described. The main chapters of the book deal with: feeding of babies under one year of age; mother's milk collection stations; dairy kitchens and their equipment and lay out; technology of baby food manufacture; dry mixes; canned baby food and baby food concentrates. STI

819

Milk proteins. Chemistry and molecular biology. Vol. II. [A book]

McKenzie, H. A. (Editor)

xiii + 552pp. ISBN 0-12-485202-5 (1971) [Numerous. ref. En] New York, USA: Academic Press, Inc. Price \$29.50 [Nat. Univ., Canberra, Australia]

The 1st volume of this 2-volume treatise dealt mainly with general aspects of proteins but also included a review of immunoglobulins in milk [see ISTA (1971) 3 RP1337]. This 2nd volume contains reviews providing a comprehensive picture of current knowledge up to 1969/70 of the remaining milk proteins. The study of casein constitutes the 1st section, which includes a discussion of the formation and structure of casein micells, by D. F. Waugh (pp. 3-85); an account of the isolation, properties and zone electrophoresis of whole casein, by H. A. McKenzie (pp. 87-116); α_s - and β -Caseins, by M. P. Thompson (pp. 117-173); κ -Casein and its attack by rennin (chymosin), by A. G. Mackinlay & R. G. Wake (pp. 175-215); and the Biochemistry of prorennin and rennin, by B. Foltmann (pp. 217-254). The 2nd section covers the physico-chemical properties, evolution and origin of the whey proteins with the β -lactoglobulins reviewed by the editor (pp. 257-332), α -lactalbumin, by W. G. Gordon (pp. 331-365), and minor milk proteins and enzymes, by M. L. Groves (pp. 367-418). Recent advances in milk protein chemistry are assessed in relation to problems of milk technology, by R. Beeby, R. D. Hill & N. S. Snow (pp. 421-465). DMK

820

[World trade in dairy products in 1970.] De wereldhandel in zuivelprodukten gedurende het jaar 1970. [A book]

Netherlands, Produktschap voor Zuivel

29pp. (1971) [Nl] Rijswijk, The Netherlands:

Author

Tables show exports in tons, by country of destination, of butter, cheese, condensed and evaporated milk, and dried milk from The Netherlands, Denmark, W. Germany, France, Switzerland, Italy, United Kingdom, Belgium, Canada, Australia, New Zealand and USA. NdeV

821

[Technological equipment of the dairy industry.]

Tekhnologicheskie oborudovanie predpriyati molochnoi promyshlennosti. [A book]

Surkov, V. D.; Lipatov, N. N.; Baranovskii, N. V.

546pp. (1970) [37 ref. Ru] Moscow, USSR: Pishchevaya Promyshlennost'. Price 1.36 roubles

The book consists of 3 parts: machinery and equipment for mechanical handling and storage and heat treatment of milk and milk products; technological equipment for the processing of liquid milk, butter, cheese, dried and concentrated milk products and ice creams; equipment and machinery for milk bottling and packaging of milk products and special equipment for cleaning in dairy plants. STI

822

Modern dairy products. [A book]

Lampert, L. M.

418pp. (1970) [Numerous ref. En] New York, USA: Chemical Publishing Co. Inc. Price £8.00

Although it is not clear from the title pages this is a revision of an old textbook. As the preface states the general objectives of the earlier editions have been retained, namely to present reliable information, in a non-technical manner on the composition, nutritive value, manufacture, chemistry and bacteriology of milk and dairy products. These objectives are achieved on the whole but the treatment of fundamental questions such as milk proteins demonstrates the divergence between the standard of the text and some of the detailed tables that are reproduced. Chapters are included on Antibiotics-Pesticides-Radioactivity. Grades and classes of milk. Flavours. as well as on Imitation milk products, and the various groups of milk products. JMD

823

Fluid-milk industry. [A book]

Henderson, J. L.

3rd edition 677pp. ISBN O 87055 090 X (1971) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co. Price: Domestic \$33.00, Foreign \$34.00.

This book, essentially the 3rd edition of 'The Market-milk industry' has been revised to include recent developments in the industry. Chapter headings are: Development of the fluid-milk industry (pp. 1-17, 11 ref.); Composition and physical and chemical properties of milk (pp. 18-48, 45 ref.); Microorganisms and the fluid-milk industry (pp. 49-70, 45 ref.); Milk and public health (pp. 71-96, 45 ref.); Safeguarding the milk supply (pp. 97-131, 25 ref.); Sanitary production of fluid market milk (pp. 132-149, 7 ref.); Sanitary dairy farm buildings: construction and arrangement (pp. 150-177, 16 ref.); Assembly and transportation of milk (pp. 178-199, 13 ref.); Flavours of milk (pp. 200-227, 72 ref.); Fluid-milk plant: construction and arrangement (pp. 228-247, 6 ref.); Milk plant operation (pp. 248-297, 40 ref.); Cleaning and sanitizing dairy equipment (pp. 298-331, 8 ref.); Pasteurization of milk (pp. 332-361, 8 ref.); Cooling with mechanical refrigeration (pp. 362-386, 11 ref.); Table and whipping cream and half and half (pp. 387-412, 32 ref.); Special milk products including

imitations (pp. 413-463, 13 ref.); Distribution of milk (pp. 464-486, 14 ref.); Cost of milk production and price plans (pp. 487-525, 20 ref.); Dairy inspection and fluid-milk control (pp. 526-568, 4 ref.); Fundamentals of nutrition (pp. 569-592, 25 ref.); Use of milk and dairy products in nutrition (pp. 593-614, 14 ref.); Quality control and the milk-plant laboratory (pp. 615-661, 31 ref.). A selection of tables and worked examples for the standardization of milk and cream are included in the appendix (pp. 662-667). JMP

824

E.E.C. Dairy facts and figures. [A book]

United Kingdom, Milk Marketing Board

4th edition 66pp. (1971) [En] Thames Ditton, Surrey, UK: Author

This report covers: Market organization and prices (pp. 6-17, giving EEC Dairy policy, institutions, regulations, target and intervention prices with respect to skim-milk and butter, threshold prices, import levies and export restitution); Dairy farming (pp. 18-28, giving cow numbers, size structure of dairy herds, milk yields and fat content, production and disposal of milk, seasonability of milk supplies, producer milk prices); Milk utilization (pp. 29-38, giving self-sufficiency ratios, farm, dairy and total utilization of milk); Liquid milk market (pp. 39-46, giving organization, number of dairies and average intake, sales to liquid market by sector, retail milk prices); Milk products (pp. 47-62, giving butter and cheese supplies and disappearance, cheese production by type, condensed milk, dried whole milk and dried skim-milk supplies and disappearance, imports and exports of milk products); Consumption of liquid milk and milk products, (pp. 63-64); Retail food prices in the EEC and the UK; (pp. 65-66). SAC

825

[Laboratory control methods in the dairy industry.] Laboratorni kontrolni metody v mlekarstvi. [A book]

Cerna, E.; Mergl, M.

263pp. (1971) [29 ref. Cs] Prague, Czechoslovakia: SNTL. Price 15.0 Kcs

The classical and modern laboratory control methods are described including chemical, physical, biological and microbiological methods. Special chapters deal with sampling methods and laboratory equipment. Evaluation and accuracy of the individual methods are also given. STI

826

[The liquid milk market in Italy.] Le marche du lait de consommation en Italie. [A book]

France, Centre National du Commerce Extérieur 198pp. (1971) [Fr] 10, Avenue d'Iena, Paris-16, France: Author. Price 50 francs

This French study refers to the present marketing organization for liquid milk in Italy, which differs from that of the other Common Market

countries due to a slump in milk production and a constantly growing demand for milk (especially sterilized and UHT milks, which gain an increasing share of the market each year). The book deals with the development of milk production in Italy, systems of payment, central dairies, use of modern containers and the distribution of different grades of milk. A final chapter is devoted to the influence of foreign trade and the possible role of France as principal milk supplier to Italy. The 11 appendices contain detailed information concerning the Italian dairy industry, listing the principal dairies, professional organizations and present legislation. [From *Revta esp. Lech.* 1971 (81) 219-220.] SAC

827

[Basic statistics of the French dairy industry. Third edition.] Chiffres-Cle de l'Economie Laitiere Francaise. 3^e Edition. [A book] France, Federation Nationale de l'Industrie Laitiere 105pp. (1971) [Fr] Paris, France: Author

This pocket book contains 4 sections covering national data, position of France in the EEC, position of France in the world and an outline of the British dairy industry. BEPC

828

[Microbiology of milk and dairy products.] Mikrobiologiya moloka i molochnykh produktov. [A book] Bogdanov, V. M. 366pp. (1969) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.83 rouble

The 1st part of this book is a general description of the classification, morphology and physiological characteristics of microorganisms. Sources of contamination and microbiological changes occurring in milk during storage are then dealt with, together with the production of pasteurized and sterilized milks and cultured milk products. Microbiological processes are discussed in relation to butter, cheese and other products. Methods for preparation of bacteriological culture media, stains and indicators and identification of microorganisms are given. STI

829

[Sanitation in milk production.] Hygiene mleka. [A book] Anusz, Z. 95pp. (1969) [Pl] Warsaw, Poland: Panstwowe Wydawnictwo Rolnicze i Lesne. Price 7 zlotych

A general account of sanitary precautions necessary to produce clean milk. The nutritive value of milk is described and its composition and bacterial flora discussed. Sanitation in the cow shed is dealt with and diseases of the udder and milk-borne diseases mentioned. The last chapter is concerned with pesticides in milk. STI

830

[Raw materials and auxiliary materials in dairying.] Surowce i materialy pomocnicze w mleczarstwie. [A book] Dabrowska, W.; Pawlik, S. 195pp. (1969) [Pl] Warsaw, Poland: Panstwowe Wydawnictwo Szkolnictwa Zawodowego. Price 10 zlotych

This handbook deals with the characteristics, processing and storage of raw materials used in the dairy industry as well as finished products. Main chapters cover: fundamentals of raw materials and auxiliary materials; metals used in the dairy industry; glass and ceramics used in the dairy industry; packaging materials (e.g., wood, paper and textiles); preparations used for washing, cleaning and disinfection; use of plastics materials; fuel and greases; water; general information on milk; milk fat and its main characteristics; milk proteins; milk sugar, minerals and other components; physical and chemical characteristics of milk; milk fermentation; other raw materials used in the dairy industry (rennet, stabilizers, etc.); and storage of raw materials. STI

831

[Engineering in the dairy industry.] Inzyniera w mleczarstwie. [A book] Tuszyński, W. 258pp. (1970) [Pl] Warsaw, Poland: Panstwowe Wydawnictwo Rolnicze i Lesne. Price 40 zlotych

The 1st part of this book, intended for technicians in the dairy industry, deals with the flow of milk, including tubing, pumps, fittings and tanks. Thermodynamics, heat generation and heat exchange applied to dairy processes are dealt with as well as theory and practice of milk concentration, drying, filtration and separation machinery and equipment (including measuring and control apparatus). A chapter is devoted to the use and possible conversion of units and the last chapter contains tables, diagrams and drawings useful for technicians engaged in the industry. STI

832

[Manufacture of milk beverages.] Produkcja napojow mlecznych. [A book] Urbanski, Z. 89pp. (1966) [7 ref. Pl] Warsaw, Poland: Zaklad Wydawnictw CRS. Price 8 zlotys

This booklet consists of the following chapters: Classification of milk beverages (pp. 7-18); Technology of milk beverage manufacture (pp. 19-67); Quality requirements and assessment of milk beverages (pp. 68-76); Hygiene of milk beverage production (pp. 77-81); and Buildings, machinery and equipment for milk beverage production (pp. 82-88). The following cultured products are considered in addition to flavoured milks: kefir; yoghurt; cultured milk; acidophilus milk; milk 'champagne' (a sparkling beverage of low alcoholic strength made from milk using butter starters and bakers' yeast, with lemon or orange peel added to

improve flavour); whey champagne (a sparkling beverage of low alcoholic strength made from fresh whey, undiluted or with 12% water added, supplemented with ~7% sugar, and 1% caramel, using bakers' yeast and raisins or essences as flavouring agents); whey 'kvas' (a beverage made from deproteinized whey using a thermophilic micro-organisms starter and yeast); 'Felisowka' (a sparkling beverage, containing 0.4-1.2% alcohol, made from buttermilk supplemented with 8% sugar, using bakers' yeast); cows' milk koumiss; and cultured buttermilk. Whey 'champagne' and 'Felisowka' are covered by Polish Commodity Standards BN-66/8042-05 and BN-66/8042-01 respectively. SKK

833

[Pumps used in dairy industry.] Nasosy dlya moloka i molochnykh produktov. [A book] Volchkov, I. I.

117pp. (1969) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.25 rouble

Pumps produced in the USSR and elsewhere, currently used for pumping milk and dairy products, are described. The final chapter deals with operating safety in the dairy industry. STI

834

[Manual for installation of technological equipment in dairy industry.] Spravochnik po montazhu technologicheskogo oborudovaniya predpriyatiy molochnoi promyshlennosti. [A book] Burinovich, L. D.; Khaikin, Ya. K.

243pp. (1969) [Numerous ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 2.32 rouble

Equipment used in dairy industry plants, and methods for its installation, are described. Production and installation of dairy pipelines are also dealt with. STI

835

[Guide to practical work in veterinary and sanitary tests on milk and milk products.] Praktikum po veterinarno-sanitarnoi ekspertize moloka i molochnykh produktov. [A book] Koryazhnov, V. P.

2nd edition 175pp. (1970) [Ru] Moscow, USSR: Izdatel'stvo Kolos. Price 0.41 rouble

This textbook, designed primarily for students of veterinary institutes and faculties and for dairy laboratories, describes practical tests used to ensure the requisite quality of milk and milk products. Individual sections deal with tests on milk (pp. 5-107); cultured and soured milk products (pp. 108-22); cream (pp. 123-25); butter (pp. 126-45); and cheese (pp. 146-57). An appendix gives the technique for correct cleaning of

milking machines and ancillary equipment and for their sanitary control. A list of 33 relevant Soviet standards and regulations is also appended. HBr

836

[Biochemistry of milk and milk products.] Biokhmiya moloka i molochnykh produktov. [A book] Inikhov, G. S.

3rd revised edition 317pp. (1970) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.65 rouble

This work, intended as a textbook for technical colleges with dairying departments, contains the following chapters: Constituents of milk (pp. 8-75); Physical properties of milk (pp. 75-93); Milk formation, changes in composition and properties under the influence of various factors (pp. 93-131); Biochemical and physico-chemical processes during processing of milk (132-48); Biochemical and physico-chemical processes during the manufacture of whole milk products (pp. 148-60); Biochemical and physico-chemical processes during the manufacture of sour milk and dietetic products (pp. 161-86); Physico-chemical processes in buttermaking (pp. 187-221); Biochemical processes in cheesemaking (pp. 221-63); Physicochemical processes in production of milk preserves (pp. 263-83); Biochemical and chemical changes in milk products during storage (pp. 283-97); and New methods of studying milk and milk products (pp. 297-314). HBr

837

[Ordinance on milk products.] Verordnung über Milcherzeugnisse. [A book]

Loeper, H. F. von
148pp. ISBN 3 7862 0003 3 (1970) [De]
Hildesheim, W. Germany: Verlag Th. Mann OHG

Section A (pp. 15-27) of this well-produced, 4-section publication quotes in full the text and relevant appendix to the W. German Ordinance on Milk Products, dated 15 July, 1970. It lays down sphere of application, manufacturing requirements, general and specific marking regulations, permitted foreign substances, penalties and changes in existing regulations. Sections B (pp. 28-35) and C (pp. 36-118) are basically general, and detailed specific, commentaries respectively on the text of the Ordinance. Section D (pp. 19-44) quotes a number of other relevant regulations. A 4-pp. subject index is included. HBr

838

Production and properties of ewes' milk: a literature survey. [Ovcie mlekarstvo (literarny prehl'ad).] [A book] Prekopp, I.; Porubiakova, J.; Nadassky, S.
264pp. (1970) [566 ref. Sk] Zilina,

Czechoslovakia: Dom Techniky

This comprehensive publication contains a world literature survey on sheep farming, production, composition and other characteristics of ewes' milk and methods for the detection of cows' milk addition, covering mainly the last 20 yr. The text is documented with numerous tables and diagrams. FL

839

Milk proteins. Chemistry and molecular biology. Vol. I. [A book]

McKenzie, H. A. (Editor)

xvii + 519pp. ISBN 0 12 485201 7 (1970) [Numerous ref. En] New York, USA: Academic Press [Nat. Univ., Canberra, Australia]

Volume I of this 2-volume treatise is mainly an introductory volume giving basic information of methods used in studies of milk proteins. The 1st part includes a brief historical account of milk protein studies by T. L. McMeekin (pp. 3-15), a broad account of protein composition of milk by R. Jenness (pp. 17-43, including nomenclature and quantitative and qualitative variations between and within spp.) and a comprehensive account by L. A. Hanson & B. G. Johanson of immunological studies of milk (pp. 45-123), which includes details of the immunoglobulins, and immunological aspects of proteins of many spp. The remainder of the volume is devoted to chapters co-authored by the editor on chemical and physical methods of characterization and study of proteins, illustrated by examples of their use on milk proteins. Volume II will contain most of the reviews of the different milk proteins. JMD

840

[Technology of milk and meat production in the European part of the USSR.] Tekhnologiya proizvodstva moloka i myasa v evropeiskoi chasti SSSR. [A book]

Rostovtsev, N. F. (Chief Editor)

816pp. (1969) [Ru]

[Continued from preceding abstr.] Hygienic and veterinary measures concerning meat and milk production on collective and state farms of the central Volga basin, by N. M. Komarov (pp. 512-16); Study of wage structure on specialized animal farms, by G. M. Volosenkov (pp. 542-47); and Mechanization and automation of milk production on commercial dairy farms suitable for Georgian SSR conditions, by V. I. Metreveli (pp. 796-801). The resolutions of the Session are given on pp. 802-09. SKK

841

[Technology of milk and meat production in the European part of the USSR.] Tekhnologiya proizvodstva moloka i myasa v evropeiskoi chasti SSSR. [A book]

Rostovtsev, N. F. (Chief Editor)

816pp. (1969) [Ru]

[Continued from preceding abstr.] Organization of milk production, increase of labour efficiency and lowering of costs on Latvian farms, by Ya. F. Vanag (pp. 280-84); Basic problems in the technology of milk and beef production in the Belorussian SSR, by V. T. Gorin, A. A. Gaiko, K. F. Borisovets & S. I. Plyashchenko (pp. 300-04); Hygienic and veterinary measures concerning milk and meat production on collective and state farms, by A. A. Polyakov (pp. 305-09); Rational breeding in dairy husbandry and economics of milk production, by I. I. Chinarov (pp. 310-15); Organization and economics of correct feeding for bovine milk and meat production in the non-chernozem zone of the USSR, by A. V. Zalevskii (pp. 351-56); Increase in labour efficiency and lowering of production costs on dairy farms of the southern regions of the European part of the USSR, by V. A. Volosozhar (pp. 411-20); Increase in labour efficiency and lowering of milk and meat costs on farms of the southern regions of the RSFSR, by M. S. Runchev (pp. 421-26); Milk production in Ukraine, by I. I. Arkhangel'skii, I. P. Danilenko & N. K. Oksamitnyi (pp. 427-33); Labour organization on dairy farms working 2 shifts, by V. S. Diesperov (pp. 472-76); Problems of farm production of good quality milk, by E. I. Gertsen, A. G. Atramentov & G. N. Dyurich (pp. 477-81); Technology of milk and beef production in the lower Volga basin and southern Urals, by S. G. Leushin (pp. 482-90); [Continued in following abstr.] SKK

842

[Technology of milk and meat production in the European part of the USSR.] Tekhnologiya proizvodstva moloka i myasa v evropeiskoi chasti SSSR. [A book]

Rostovtsev, N. F. (Chief Editor)

816pp. (1969) [Ru] Moscow, USSR: Izdatel'stvo Kolos'. Price 3.48 Roubles

These proceedings of a session of the All-Union Academy of Agricultural Sciences in Khar'kov on 29 May-3 June 1967 include the following articles: Technology and economic efficiency of milk and meat production on specialized dairy farms of the southern regions of the European part of the USSR, by I. A. Danilenko (pp. 39-60); Technology and economic efficiency of bovine milk and meat production in central and northern regions of the European part of the USSR, by M. Yu. Tsynkov & A. P. Beguchev (pp. 81-92); Technology and economic efficiency of milk and meat production on specialized dairy farms in the Urals and the Volga basin, by A. P. Kalashnikov & B. A. Bagrii (pp. 111-24); Specialization of farms and technological changes in production of animal husbandry produce, by G. M. Loza (pp. 222-31); Scientific organization of labour in dairy husbandry, by V. A. Tikhonov & Vu. T. Buzilov (pp. 237-45); Some problems of milk production technology, by M. I. Kniga (pp. 246-50);

Technology of specialized farms of the north-western USSR, by A. S. Emelyanov (pp. 251-57); The animal husbandry basis of the technology of milk and beef production in the Latvian SSR, by Ya. M. Berzin' (pp. 258-61); Technology of bovine milk and meat production on specialized farms in the Estonian SSR, by A. E. Mel'der (pp. 262-69); [Continued in following abstr.] SKK

843

[Brief manual for dairy factory engineers.] *Kratkii spravochnik mekhanika molochnogo zavoda.* [A book] Degtyarev, F. G.; Kyutner, B. A.; Lew, M. B. 302pp. (1969) [21 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost' Price 1.15 rouble

This manual consists of the following chapters: Materials used in the dairy industry (pp. 3-15); Organization of equipment repair and servicing (pp. 16-43); Equipment for primary processing of milk and transport to dairy factory (pp. 43-54); Equipment for reception and storage of milk and within-factory transport of milk and milk products (pp. 54-91); Equipment for mechanical treatment of milk (pp. 92-127); Equipment for heat treatment of milk (pp. 127-61); Equipment for manufacture of cultured milk and fresh cheese products (pp. 162-97); Equipment for ice cream manufacture (pp. 197-218); Equipment for bottle washing, milk bottling and packaging of milk and milk products (pp. 218-56); Equipment for washing and sterilization of tubing, equipment and apparatus (pp. 257-70); Devices for automative control and regulation of technical processes (pp. 270-83); and Fundamental calculation formulae (pp. 283-95). SKK

844

[Technology of milk production.] *Tekhnologiya proizvodstva moloka.* [A book] Kramarenko, N. M. 216pp. (1970) [Ru] Moscow, USSR: Rossel'khozizdat. Price 0.43 rouble

This book consists of the following chapters: Maintenance and development of herd (pp. 5-34); Technique of feed production and preparation of rations (pp. 34-71); Management of permanent cultivated pastures and green feed (pp. 71-91); Technique of cow feeding (pp. 91-117); Technique of cow keeping (pp. 117-32); Types, dimensions and construction of cowsheds (pp. 132-43); Mechanization of technical processes in dairy husbandry (pp. 143-77); Organization features of breeding on specialized dairy farms (pp. 178-93); and Organization and economics of production in dairy husbandry (pp. 193-214). SKK

845

Ultra-high-temperature (U.H.T.) processing and aseptic packaging (A.P.) of dairy products [A book]

Hsu, D. S. xi 304pp. (1970) [Numerous ref. En] New York, USA: Damana Tech Inc. [Weissglass Gold Seal Dairy Corp., Staten Island, NY, USA]

This handbook is divided into 9 chapters. After dealing with the definitions, theoretical basis and basic principles of UHT processing, the author describes in the major chapters the construction and operation of different types of UHT equipment and aseptic packaging machines, giving general technical data, capacities and locations of installations. The concluding chapters deal with the quality of UHT-sterilized aseptically packaged dairy products and future trends. FL

846

Byproducts from milk. 2nd edition. [A book] Webb, B. H.; Whittier, E. O. (Editors) ix + 428pp. ISBN 0 87055 085 3 (1970) [Numerous ref. En] Westport, Connecticut, USA: Avi Publishing Company, Inc. Price US \$18 Foreign \$19 [E. Util. Res. and Development Div., Washington DC, USA]

This book, which has been written with the purpose of assembling, in one volume, the numerous published methods applicable to the utilization of dairy byproducts, is directed mainly towards engineers, managers, supervisors, and operators of plants processing milk or manufacturing foods containing milk. The book contains the following chapters: The byproducts of milk, by G. C. Nutting (pp. 1-23); Fermentation products from skim-milk, by R. E. Hargrove (pp. 24-42); Fermentation products from whey, by E. H. Marth (pp. 43-82); Condensed products, by B. H. Webb (pp. 83-123); Dried products, by M. J. Pallansch (pp. 124-82); Cheese and cheese products, by H. E. Walter & F. E. McDonough (pp. 183-96); Bakery products, by E. J. Guy (pp. 197-225); Sterilized products, by L. F. Edmondson (pp. 226-73); Milk fat utilization in foods, by A. M. Sadler & N. P. Wong (pp. 274-84); Miscellaneous products, by B. H. Webb (pp. 285-330); Casein and whey products, by K. K. Fox (pp. 331-55); Lactose, by T. A. Nickerson (pp. 356-80); Nutritional characteristics of milk components, by M. F. Brink (pp. 381-404); and Disposal of dairy wastes, by W. S. Arbuckle (pp. 405-22). A list of selected references is given at the end of each chapter. CDA

847

[Collection of research papers of the dairy research institute in Slovakia for the years 1962-67.] *Zbornik prac mliekarenskeho vyskumu na Slovensku.* [A book] Prekopp, I.; Krcal, Z.; Porubiakova, J. Herian, K. 110pp. (1969) [Cs, en, de] [Prague, Czechoslovakia: CAZ-VUUP-STIPP. Price 38.60 Kcs.]

Information is given of research work carried out during 1962/67 at the Dairy Research Institute at Zilina (Slovakia) on: specialization in the dairy industry; technology and mechanization of Brinza

cheese production; isolation and identification of microorganisms in ewes' milk and ewes' milk products; microbiological changes in ewes' milk; transport of ewes' milk; technology of scalded curd cheeses; and storage of industrial quarg. A list of publications by members of the Institute is appended. STI

848

[Preserved milk manufacture.] Proizvodstvo molochnykh konservov. [A book]
Kivenko, S. F.
160pp. (1969) [15 ref. Ru] Moscow, USSR;
Izdatel'stvo 'Pishchevaya Promyshlennost'. Price
0.20 Rouble

This booklet, intended as a teaching aid for technical school students, consists of the following chapters: 'Milk as raw material for preservation' (pp. 6-18); 'Reception and treatment of milk at collecting centres' (pp. 18-21); 'Methods of milk preservation and forms of preserved milk' (pp. 21-23); 'Processing common to all forms of preserved milk' (pp. 23-56); 'Manufacture of sweetened condensed milk' (pp. 56-97); 'Manufacture of evaporated milk' (pp. 97-107); 'Manufacture of dried milk' (pp. 107-39); 'Defects of preserved milk' (pp. 139-45); 'Cleaning and disinfection of equipment' (pp. 146-54); and 'Production and microbiological control and record keeping' (pp. 154-56). SKK

849

[Labour efficiency and productivity in the dairy industry and ways of improving them.] Proizvoditel'nost' truda v molochnoi promyshlennosti i puti ee povysheniya. [A book]
Sterligov, B. I.
196pp. (1969) [14 ref. Ru] Moscow, USSR;
Izdatel'stvo 'Pishchevaya Promyshlennost'. Price
0.57 Rouble

This book, intended for engineering and technical staff of dairy factories, consists of a brief introduction and the following chapters: Labour efficiency in the dairy industry and its growth (pp. 8-13); Methods of measuring labour efficiency (pp. 14-41); Technological progress as basis of growth of labour efficiency (pp. 42-95); Role of improvement of production pattern in growth of labour efficiency (pp. 95-129); Improvement of organization of production and labour as basis of growth of labour efficiency (pp. 130-69); and Economic and social incentives of labour efficiency growth (pp. 169-88). SKK

850

[Survey of the Dutch dairy products market: consumption of milk and products in the home.] Verkenning Nederlandse Zuivelmarkt. Gebruik van melk en daaruit bereide producten in het gezin. [A book]
Anon.

23pp. (1969) [Nl] Rijswijk, The Netherlands: Nederlands Zuivelbureau. Price 5 guilders.

The data presented in this report are the results of a consumer survey carried out in 1968 by Attwood Statistics (Nederland) NV in 1663 Dutch households. For sampling purposes, the country was divided into 5 districts; 1 district comprised the 3 largest towns, Amsterdam, Rotterdam and the Hague, while the other 4

comprised the provinces exclusive of the 3 towns. The products investigated were liquid milk, buttermilk, chocolate milk, yoghurt, fruit yoghurt, custard ('vla'), 'vla-flip', quarg and ice cream. Interviews were conducted with housewives who supplied information on attitudes to the products, preference, frequency of use by the family and times of the day at which the products were used. Interviewees were tested for ready word image association with milk with the aid of a specially devised score card and a list of 11 words projecting a positive or negative image. Some results of more recent consumer surveys for milk conducted among children in the 6-12 yr age group and among teenagers are included. NdeV

851

[Problems of the processing of ewes' milk in the USSR: collection of lectures.] Problematika spracovania ovčieho mlieka v ZSSR. Subor prednasok. [A book]
Dilanyan, Z. Kh. [Dilanyan, Z. Kh.]
34pp. (1969) [15 ref. Sk] Zilina, Czechoslovakia: Krajsky Vybor Slovenskej Vedecko-technickej Spolocnosti pre Potravinarsky Priemysel v Banskej Bystrici

This publication contains the following lectures by Russian authors, translated from the Russian originals: 'Processing of ewes' milk in the USSR', by Z. Kh. Dilanyan (pp. 1-7); 'Production, composition and properties of ewes' milk throughout lactation', by Z. Kh. Dilanyan, V. N. Paravyan, L. G. Minasyan, M. G. Karamyan & G. N. Bagdasarov, (pp. 8-16, 5 ref.); 'Ewes milk products made in the Armenian SSR', by Z. Kh. Dilanyan (pp. 17-25); Microbiological and biochemical study of Bryndza cheese made from ewes milk', by Z. Kh. Dilanyan & S. L. Pasharyan (pp. 26-34, 15 ref.). FL

852

[Milk.] Moloko. [A book]
Davidov, R. B. (Editor)
328pp. (1969) [Numerous ref. Ru] Moscow:
Izdatel'stvo 'Kolos'. Price 1.12 Roubles.
[Sel'skokhoz. Akad. imeni K. A. Timiryazeva, Moscow, USSR]

This monograph, intended for animal husbandmen, veterinarians, sanitarians and dairy technologists, is largely based on results of research carried out at the Timiryazev Acad. and is written by members of the Acad. staff with collaboration of outside workers. The 1st 52pp. outline the part of Russian scientists and dairymen in the development of dairying, the nutritional bases of milk utilization, the

formation and secretion of milk and methodology of cow-feeding expt. The subsequent main divisions of the book deal with milk yield and composition (pp. 53-263), milk hygiene (pp. 264-322) and Soviet milk standards (pp. 322-26). SKK

853

[Technology of milk processing.] Technologie der Milchverarbeitung. [A book]

Speer, E.
356pp. (1968 [Numerous ref. De] Leipzig, E. Germany: VEB Fachbuchverlag

This textbook deals with all stages of milk handling and treatment and manufacture of dairy products and also covers cleaning and disinfection, provision of water, refrigeration, steam and electricity in the dairy plant. The book is well illustrated with drawings of equipment. FL

854

[Market-milk industry.] Shinyu-Kogyo. [A book]

Tsugo, T. (Editor)
365pp. (1969) [Numerous ref. Ja] Tokyo: Chikyu-Shuppan-Kabushikigaisha

This book, intended for engineers, research workers and teachers, is divided into 3 main parts. Part I covers the design of milk plant and includes 3 chapters. Part II describes machine equipment and includes 3 chapters. Part III deals with milk and its processing and includes 4 chapters. This book is well-illustrated and well-referenced and each chapter has been written by a specialist. YA

855

Drinka pinta. The story of milk and the industry that serves it. [A book]

Jenkins, A.
xii + 242pp. (1970) [20 ref. En] London: Heinemann. Price 63s.

This book, published on the occasion of the 50th anniversary of the formation of the National Milk Publicity Council Inc., is a readable account of the development of the UK dairy industry with particular emphasis on the successful advertising, public relations and educational campaigns of the period covered. The title is taken from the advertising slogan which helped to raise annual sales of milk for liquid consumption by 140 million gal over the decade 1957-67. BEPC

856

[Machines and equipment for the dairy industry.] Mashiny i apparaty molochnoi promyshlennosti. [A book]

Prityko, V. P.; Lungren, V. G.
416pp. (1968) [Ru] Moscow, USSR: Pishchevaya Promyshlennost'. Price 62 k.

This book deals with equipment for transport and handling of raw materials and storage of the product; pipelines, pumps and their application; equipment for the heat treatment and cooling of milk and liquid milk products; centrifuges, homogenizers and filtration equipment; equipment for the manufacture of cheese, casein, condensed and dried milk and ice cream and packaging machinery. Control and measuring instruments used in the dairy industry for the regulation of temp., pressure, flow rate etc. are described and information on the assembly and maintenance of equipment given. STI

857

[Recipes for milk beverages and dishes.] Receptury mlecných napojů a jídel. [A book]

Anon.
177pp. (1969) [Cs] Prague, Merkur. Price 15 Kcs.

Recipes for milk beverages and dishes, with specifications for material requirements for 100 persons or for 10 kg product are given. Recipes are given for hot and cold beverages, cocktails, puddings, parfaits, creams, spreads, cheese products, and other types of sandwich spread, heat-processed products, convenience products, confectionery, cold fruit soups and hot soups. STI

858

[Increasing the protein content of milk.]

Povyshenie soderzhaniya belka v moloche. [A book]
Pyanovskaya, L. P.

133 pp. (1968) [Ru] Moscow, USSR: Izdatel'stvo Kolos'. Price 0.22 Roubles

This book, intended for workers in livestock production and for scientists, covers the subject under the following headings: milk proteins, their formation and methods of determination; instability of proteins in milk; hereditary differences in the stability of proteins in cows' milk; factors affecting the stability of proteins in milk; and measures for increasing the stability of proteins in cows' milk. STI

859

[Total folic acid content of human and cows' milk.] (In "In memory of I. Emanuelov. Papers on microbiology, enzymology and biochemistry.")

In "V pамет na Akademik Ignat Emanuelov. Trudove vvrkhú izbrani problemi na mikrobiologiyata, enzimologiyata i biokhimiya". [A book]
Karlin, R.

pp. 135-41 (1969) [19 ref. Fr, ru] Sofia, Bulgaria: Izdatelstvo na Bulgarskata Akademiya na Naukite [Inst. Pasteur, Lyons, France]

This article contains, in addition to information about lactational changes in folic acid content of human and cows' colostrum and milk presented in Int. Z. VitamForsch. (1967) 37 (3) 334-42 & C. r. Seanc. Soc. Biol. (1966) 160 (11) 2123-27, further data on cows' milk as follows. Raw bulk milk

contains (mean and range for 12 samples) 65.5 (58.0-71.7) ng/ml. Losses in heat treatment were: pasteurization (91-92° C for 2-3 sec), 9.8%; domestic boiling for 2-5 min, 11.4%; sterilization, 29%. SKK

860

[Improving composition and properties of milk.] Uluchshenie sostava i svoystv moloka [A book] Markova, K. V. 128pp. (1969) [Ru] Moscow: Rossel'khozizdat. Price 0.29 Rouble

This booklet is concerned primarily with the compositional quality of Soviet market and manufacturing milk, and presents information from Soviet sources on effects of period of lactation, feeding, breed, body conformation and genetic make-up of cattle on TS, fat, protein and lactose contents of milk. Brief statements on removal of foreign matter from milk and on cooling of milk are included. SKK

861

[Handbook on the installation of equipment in dairy plants.] Spravochnik po montazhu tekhnologicheskogo oborudovaniya predpriyati molochnoi promyshlennosti. [A book] Rubinovich, L. D.; Khaikin, Ya. K. 503pp. (1969) [Ru] Moscow: Izdatel'stvo "Pishchevaya Promyshlennost"

Basic rules for the installation of dairy equipment are given and brief descriptions of a wide range of machines for the dairy industry included. Amongst them are: milk storage tanks; centrifugal separators and clarifiers; a centrifugal separator for water removal in lactose and casein manufacture; plant for the reconstitution of dried milk; pasteurizers; machines for making quarg; butter; cheese and ice cream, packaging machines; and milk pipelines and fittings. Various aspects of safety and precautions against fire are also dealt with. The book is intended for technicians and engineers engaged in the installation and operation of dairy equipment. FL

862

[Commercial sales policy for dairying. Principles and instruments.] Betriebliche Absatzpolitik für die Molkereiwirtschaft. Grundlagen und Instrumente. [A book] Seidler, K.; Berz-List, G. 82pp. (1969) [47 ref. De] Hildesheim: Verlag Th. Mann GmbH

This book, designed to aid the dairy industry in the face of the current swing from a seller's to a buyer's market, is in 2 parts. Part I, 'Principles and instruments of commercial sales policy for the dairy industry' (pp. 9-58, 17 ref.), by K. Seidler, discusses terminology (definitions, e.g. 'sales', 'marketing', 'public relations'), the market situation for liquid milk, butter and cheese, the theoretical basis of selling, sales policy instruments (e.g. product range,

advertising, pricing) and sales coordination. Part II, 'Price policy and costs accounting' (pp. 59-82, 47 ref.), by G. Berz-List, discusses methods and objectives of a commercial price policy, its basic principles, pricing methods, data needed for costs accounting, and costs account structure. HBr

863

[Production of edible fats, milk and dairy products.] Tovarovedenie pishchevykh zhirov, moloka i molochnykh produktov. [A book] Kozin, N. I.

478pp. (1968) [Ru] Moscow: Izdatel'stvo 'Ekonomika' Price 1 r. 26 k.

The production and consumption of edible fats in the USSR is discussed, together with the properties, significance and classification of fats (animal, vegetable, bone, sea mammal and fish). Brief mention is made of hydrogenized fats. Production of milk and dairy products in the USSR is discussed, plus the following topics: chemical composition, factors affecting changes in the basic components, chemical and physical properties of milk; biochemical processes occurring in milk and dairy products; effect of physical factors on milk; heat treatment of milk; cream; fermented milk products; Cottage and home-made cheeses; ice cream; condensed milk; butter; and storage, packaging and transport of milk and dairy products. STI

864

[Dairy biology.] Biologia dla mleczarstwa. [A book] Drewniak, T.

234pp. (1968) [Pl] Warsaw: PWSZ. Price 10 zl.

The fundamentals of the anatomy and physiology of dairy cows are presented. The following topics are covered: structure of animal cells, types of animal tissue, skeleton, muscles, digestive system, blood circulation, skin, nervous system, organs of sense, secretion, principles of cattle breeding, specialized cowshed and pasture breeds, fodders, fodder storage, morphology and physiology of micro-organisms, multiplication of bacteria, yeasts, moulds and viruses, fermentation, methods of biological research, micro-organisms in relation to human health, multiplication of micro-organisms in milk, milk cultures, cultivation of kefir yeast, milk testing, pasteurization, sterilization and milk preservation. STI

865

[Machines and equipment in the dairy industry.] Aparatura i urzadzenia techniczne w mleczarstwie. [A book]

Garbonowski, I.; Dobrowolski, W. 163pp. (1968) [Pl] Warsaw: PWSZ. Price 7 zl.

General data on machines and equipment used in the dairy industry are given, and general maintenance is outlined. Specific topics included in the book are conveyors; storage tanks; bottle washers; fillers; pasteurizers; homogenizers; pumps and separators; buttermaking machines (including churns and butter formers); cheesemaking machines; mechanical vats; presses; equipment for producing Cottage cheese, casein and ice cream; casein driers; adsorption cooling equipment; ventilation and air conditioning; water treatment plant; and instruments for control, measurement and automatic regulation. STI

866

[National Milk Annual 1969.] *Annuaire National du Lait 1969.* [A book]

Anon.

19th edition 732pp. (1969) [Fr] Paris: Les Editions Comindus

This comprehensive directory on the French dairy industry consists of 4 parts. Part I deals with national professional organizations, legislation, dairy education and labelling of cheese; part II with production and processing, listing local professional organizations and processors arranged alphabetically and by product; part III gives an index of suppliers to the dairy industry; and part IV lists agents, wholesalers, exporters etc. FL

867

Dairy effluents. Report of the Dairy Effluents Subcommittee of the Milk and Milk Products Technical Advisory Committee. [A book]
United Kingdom, Ministry of Agriculture, Fisheries and Food; Department of Agriculture and Fisheries for Scotland; Scottish Home and Health Department
viii + 72pp (1969) [13 ref. En] London: HM Stationery Office. Price 7s

This bulletin reviews the legal aspects of dairy effluent disposal; the control of dairy effluents with special reference to the sources of effluent, identification of sources and estimation of losses, reduction of losses, variations in losses with different types of plants; detergents etc. in dairy effluents, and water saving; the discharge of effluents to sewers, with reference to special problems of dairy effluents, pre-treatment, conditions, and charges; the discharge to water courses; and the methods of dairy effluent treatment before discharge, the different processes used being described and illustrated. The spray disposal of dairy wastes on grassland is also reviewed. A useful glossary of terms used in dairy effluent treatment is provided in one of the appendices. EJM

868

[Manual of the dairy industry. 4th edition.]

Praktikum po molochnomu delu. [A book]

Kugenev, P. V.; Barabanshchikov, N. V.

287pp. (1968) [Ru] Moscow: Izdatel'stvo 'Kolos' 69 Kop.

This textbook, intended for students of agriculture and workers in the dairy industry, deals with analysis of milk and dairy products, processing of milk into the major dairy products, production of high-quality milk on the farm and various organizational and technical problems of the dairy industry. FL

869

[Dairying manual.] *Spravochnik po molochnomu delu.* [A book]

Chebotarev, A. I. (Editor)

335pp. (1968) [Ru] Moscow: Izdatel'stvo 'Kolos'

This manual, intended for technologists connected with the production and processing of milk, gives information on a wide range of dairy subjects, including milk composition and properties, milking, cooling and storage of farm milk and its transport to dairies, milk processing and manufacture of milk products, and analysis. Of particular interest is information on various unusual milk products such as acidophilus milk and kefir for feeding purposes, dried acidophilus skim-milk and whey products. FL

870

Symposium: dairy lipids and lipid metabolism.

Sponsored by the Special Dairy Industry Board on September 28 and 29, 1967, Chicago, Illinois. [A book]

Brink, M. F.; Kritchevsky, D. (Editors)

xii + 233pp. (1968) [Numerous ref. En] Westport, Connecticut: AVI Publishing Company, Inc. Price \$16.00 [National Dairy Council, Chicago, Illinois, USA]

The following papers were read at this symposium on the possible role of dairy foods in the development of coronary heart disease: 'Studies on milk fat and milk fat fractions', by T. Richardson (pp. 4-14); 'The preparation, characterization and chemical analysis of milk fat fractions', by J. M. deMan (pp. 15-27); 'Triglyceride composition of milk fats [of the cow, goat, sheep, horse, dog, guinea-pig and woman]', by A. Kuksis and W. C. Breckenridge (pp. 28-98); 'Analysis of milk lipids', by O. S. Privett et al. (pp. 99-115); 'The influence of the major fatty acids in milk fat on serum cholesterol levels', by D. S. Sgoutas and F. A. Kummerow (pp. 116-34); 'Interrelated effects of nutritional factors on serum lipids and atherosclerosis', by H. B. Lofland, Jr. and T. B. Clarkson (pp. 135-48); 'Influence of fatty acid composition of infant formulas on the development of arteriosclerosis and on the lipid composition of blood and tissues. I. Lipid studies', by L. D. Greenberg and P. Wheeler (pp. 149-60); 'Effects of specific fatty acids on serum cholesterol in man - studies with semisynthetic materials', by D. M. Hegsted et al. (pp. 161-75);

'Effect of milk and milk components upon serum lipids and lipoprotein levels in man', by G. Bazzano and R. E. Olson (pp. 176-95); 'Effect of dairy fat and dairy fat fractions on serum lipids and cholesterol metabolism in man', by R. G. Campbell et al. (pp. 196-208); 'Comparison of effects of milk and its lipid and carbohydrate constituents with those of other dietary fats and carbohydrates on serum lipid concentrations in man', by G. A. Goldsmith et al. (pp. 209-26). JMD

871

Developments in manufacturing milk in Australia and New Zealand. [A book]
Armstrong, D. L.; Blissett, D. R.; Harries, J. G. 66pp. (1968) [En] Thames Ditton, Surrey: Milk Marketing Board

The authors describe their observations on the dairy industry in New Zealand and Australia, based on a 25-day tour of the 2 countries, dealing with milk production, research, and the manufacture of butter, cheese, casein, caseinates and co-precipitates. The paper gives a good insight into the many aspects of the dairy industry and acquaints the reader with the latest developments in dairy products manufacture and equipment used in the 2 countries. FL

872

[National Milk Annual, 1968.] Annuaire National du Lait 1968. [A book]
Anon. 18th edition 728 pp. (1968) [Fr] Paris: Les Editions Comindus

This comprehensive directory on the French dairy industry consists of 4 parts. Part I deals with national professional organizations, legislation, dairy education and labelling of cheese; part II with production and processing listing local professional organizations, and processors arranged alphabetically and by product; part III gives an index of suppliers to the dairy industry; and part IV lists agents, wholesalers, exporters etc. FL

873

[Concentration of production in the dairy industry and its economic effects.] Kontsentratsiya proizvodstva v molochnoi promyshlennosti i ee ekonomicheskaya effektivnost. [Book]
Pelikh, A. S.

52pp. (1972) [Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost' Price 0.17 rouble

This booklet, intended for dairy specialists, analyses various theoretical and practical problems of the concentration of manufacture in the dairy industry. It describes factors determining the level of the concentration, deals with its effects on the productivity of labour, utilization of capital investments and basic funds, cost of manufacture

and the quality of the products. In the concluding part it gives information on the determination of optimum sizes of butter factories in Northern Caucasus and on the measures to be taken for obtaining the best results. FL

874

An economic study of the dairy industry in Jamaica. [A book]

Atsu, S. Y.

xviii + 493pp. (1970) [Numerous ref. En] St. Augustine, Trinidad, W. Indies: University of the West Indies

Objectives of this survey were (i) to identify major obstacles to rapid growth in the Jamaican dairy industry, and (ii) to assess growth prospects in the industry. It contains 6 parts, the 1st tracing in detail the development of the dairy industry from 1910 up to and including 1968. The 2nd part covers characteristics of dairy farms and farm operators, and is based on 2 field surveys carried out in 1967 and 1968, the 1st survey covering 176 farms and the 2nd covering 70 farms (including 40 from the 1st survey) in greater depth. Details, largely obtained by questionnaires and interviews, are included on farm type, farm size, pasture management, size, composition and yields of dairy herds, capital investment, management practices, and labour. The 3rd part gives the results of a survey of the economics of milk production based on data obtained from 27 dairy farms (including 4 dairy settlement farms at Rhymesbury). One of the main findings was that only 9 of the 27 farms made some profit, the amount of which ranged from £0.1 to £41.3/acre. The 4th part deals with consumption of milk and milk products in Jamaica, with special reference to the spendable income of consumers, milk price, and dietary habits, while the 5th part covers aspects of the milk price policy. The final part is a summary of the report in which factors which have had a depressing effect on the growth of the dairy industry are discussed with special reference to structural limitations, supply limitations, demand limitations and limitations arising from milk price policy. The report is amply embellished with statistical data. EJM

875

[Structure of the liquid milk market in Belgium.] L'organisation du marche du lait de consommation en Belgique. [A book]

France, Centre National du Commerce Extérieur 143pp. (1970) [Fr] Paris, France: Author [10 Avenue d'Iena, Paris 16^e, France]

A statistical analysis (pp. 1-57) is presented, showing trends in total and market milk production, the structure of the market milk processing industry, the importance of producer retailing in certain regions, sales of grades A and AA milks under quality mark, milk packaging, producer and retail prices of market milk, the

organization of milk distribution, sales points and doorstep deliveries. Appendices 2-9 (pp. 91-138) contain government regulations concerning the trade in cows' milk, sale of milk under quality mark, quality grading of milk and cream supplied to dairy factories, testing of milk and cream quality and yoghurt starter activity, licensing of enterprises or persons engaged in transport, processing, packaging and selling of milk and milk products, max. prices for market milk, and regulations governing the control on importation of milk, cream, butter, cheese, dried and concentrated milks and yoghurt. NdeV

876

[New planning methods and economic incentives in the dairy industry.] Novye metody planirovaniya i ekonomicheskogo stimulirovaniya molochnoi promyshlennosti. [A book]

Pospelova, E. A.; Chirkova, A. N.

82pp. (1968) [Ru] Moscow: Izdatel'stvo

'Pishchevaya promyshlennost'. Price 23 k.

The book is intended for dairy economists and engineers. It includes new planning methods and evaluations of economic incentives in the dairy industry, basic conditions for the development of such methods, planned production, profitability, labour, wages, and the introduction of new technologies, materials and equipment. Economic results obtained by dairies using the new planning methods are discussed. STI

877

[Outline of the economics and organization of the dairy industry.] Zarys ekonomiky i organizacji mleczarstwa. [A book]

Golebiewski, T.

267 pp. (1968) [Pl] Warsaw: Panstwowe wydawnictwo rolnicze i lesne. Price 35,-zl.

This book contains the following sections: Milk production. Prices and profitability. The purchase of milk. The dairy industry in the national economy. Trends in the dairy industry. The organization of milk production. The siting of factories. The marketing of milk products. STI

878

Food Standards Committee report on condensed milk [A book]

United Kingdom, Ministry of Agriculture, Fisheries and Food

29pp. (1969) [En] London: H.M. Stationery Office. Price 3s

Changes are recommended in the descriptions in the statutory declarations for sweetened and unsweetened condensed milks in the UK. The recommended categories and compositional standards include skimmed and partly skimmed products and would only permit the addition of CaCl_2 and the sodium salts of carbonic, citric and orthophosphoric acids up to a max. total level of 0.2% by weight of the finished product.

Sugar would be the only sweetening agent permitted. BEPC

879

New dairy foods. A classified selection of literature from Dairy Science Abstracts Vols. 29-33 (1967-1971). [Book]

UK, Commonwealth Bureau of Dairy Science and Technology

77pp. (1972) [550 ref. En] Farnham Royal, UK, Commonwealth Agricultural Bureaux Price £5.50

This bibliography contains >550 references and abstracts, classified into the following 10 sections, abstracts within each section appearing in chronological order of their publication in Dairy Science Abstracts: new dairy foods - general; liquid milk products; cultured milk products; jellified milks, custards and other thickened milk products; high-fat spreads; low-fat spreads, curd- and cheese-products; protein products; whey products; dried milk products; and frozen milk products. CDP

880

[Lactose.] Molochnyi sakhar. [Book]

Khramtsov, A. G.

192pp. (1972) [Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.33 r.

This book deals with chemical and physical properties of lactose manufacturing aspects and its uses in medicinal preparations, fermentation media for antibiotics production and the food industry. Most of the text (pp. 21-174) is devoted to various aspects of lactose manufacture, covering whey and its properties, physical and chemical principles of lactose manufacture (removal of protein and fat from whey, demineralization, separation of whey constituents by gel filtration, concentration by reverse osmosis, lactose crystallization and drying), procedures for lactose production, improvements in manufacturing techniques and refinement of crude lactose, defects and measures for controlling them, and organization and economics of lactose manufacture. The book contains many tables and diagrams and is well referenced. FL

881

Drying of milk and milk products. 2nd edition. [A book]

Hall, C. W.; Hedrick, T. I.

xii + 338pp. ISBN 0 87055 107 8 (1971) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co., Inc. Price US \$18.50 Foreign \$19.50 [Coll. of Engineering, St. Univ., Pullman, Washington, USA]

This book, written by a dairy technologist and an engineer, combines academic knowledge and industrial experience, and includes both basic principles and operating data pertaining to the

whole sphere of milk drying. Chapters, each with its own list of references, cover the following aspects: history and growth of the dried milk industry; theory of evaporation and evaporators; drum or roller driers and other methods; spray drying; instrumentation and control; processing, packaging and storage of evaporated, condensed and sweetened condensed milks; processing, packaging and storage of dried skim- and whole milks; by-products and special products; quality control and sanitation; properties of dried milk; and markets and uses. A series of appendices includes relevant US patents and a number of evaporator comparison flow charts. This 2nd edition, which differs from the 1st only in minor revisions of production and utilization data, can be recommended to persons not already possessing the earlier edition. CDA

882

Casein manual.

Australia, Australian Society of Dairy Technology 27pp. (1972) [3 ref. En] Parkville, Victoria 3052, Australia, Author. Price \$1.50

This manual is intended to give in a concise form the procedure for the production of a high-quality acid casein, particular attention being given to manufacturing aspects of an edible grade product. Individual manufacturing stages are described in full, and accounts given on sanitation, causes and correction of process and product faults, standards and specification, and yield. A concluding section outlines the manufacture of sodium caseinate. FL

883

[USA market for edible casein and caseinates.] Le marche des caseines et caseinates alimentaires aux Etats-Unis. [A book]

France, Centre National du Commerce Extérieur 121pp. (1970) [Fr] Paris, France: Author. Price 100 francs

This report examines in detail the market for edible sodium caseinate in the USA with reference to imports, outlets, manufacturing and the characteristics of the market. Consumption of sodium caseinate in the USA has risen from ~12 000 tons in 1967, to ~17 000 tons in 1968, and ~30 000 tons in 1969. About 8% of this was imported in 1969, mainly from Canada. The principal products manufactured are coffee-whiteners (22.7% of market), whipped toppings (13.9% of market) and instant breakfasts (13.9% of market). The report concludes that the demand for sodium caseinate

884

[Koumiss and 'shubat'.] Kumys i shubat. [A book]

Cherepanova, V.; Khasenov, A.; Seitov, Z.; Duisembaev, K.; Belokobylenko, V. 2nd edition 186 pp. (1971) [Ru] Alma-Ata, USSR: Izdatel'stvo 'Kainar'. Price 0.44 rouble

A great deal of interesting information is given in this booklet on koumiss (fermented mares' milk) and 'shubat' known also as 'chal' (fermented camels' milk), their manufacture and the characteristics of the milks of the 2 animal species. Major chapters include biochemical and microbiological principles of koumiss manufacture, antibiotic properties of koumiss, milk production of mares, milking of mares, koumiss-producing farms, koumiss-manufacturing techniques, preservation of mares' milk and koumiss by drying, methods for analysing mares' milk and koumiss, 'shubat', milk production of camels, composition of camels' milk, and 'shubat' as a therapeutic product. FL

885

[Technological equipment for the production of cultured milk products.] Tekhnologicheskoe oborudovanie dlya proizvodstva kislomolochnykh napitkov rezervuarnym sposobom. [A book] Belyaev, A. N.

130pp. (1970) [Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennosti'. Price 0.28 rouble

This book, intended for mechanics and foremen in milk processing plants, describes equipment for the preparation of cultured milk products (koumiss, kefir, acidophilus milk and yoghurt) by vat ripening methods. Operating characteristics are given of heat exchangers, regulators, separators, pumps, homogenizers, vats, packaging machinery and in-place cleaning systems, together with an outline of requirements for their disposition in large scale production lines. BEPC

886

[Kefir, yoghurt, acidophilus and other sour milk products.] Kefir, joghurt, acidofilni a jine kysky. [A book]

Teplý, M.; Hylmar, B.; Kalina, C.; Rumlova, V. 185pp. (1968) [34 ref. Cs] Prague: SNTL - Nakladatelství Technické Literatury

This useful book consists of 7 chapters, covering the microbiology of cultured milks, their nutritional, dietetic and therapeutic effects, commercial manufacture in dairies of soured milk, cultured buttermilk, conc. cultured milk (with 6% and 12% SNF), cultured cream, acidophilus milk, yoghurt, kefir and other cultured products, preparation of cultured milks in canteens and dietetic kitchens of hospitals, sanatoria, institutions etc, domestic preparation of cultured milk products and their uses in beverages and meals and the evaluation and control of the quality of cultured milk products. Many recipes are given on the use of cultured milk products in the preparation of fruit beverages, soups, sauces, mayonnaise, and spreads for other culinary purposes. The book is intended for workers in dairies, canteens, milk bars, hospitals and for consumers interested in making their diet more varied through the use of cultured products. FL

887

[Cultured milk products.] Sauermilcherzeugnisse. [A book]

Klupsch, H. J.

140 pp. (1968) [103 ref. De] Hildesheim, W. Germany; Verlag Th. Mann GmbH.

This practically orientated book covers the manufacture of major cultured milks (yoghurt, fruit yoghurt, cultured buttermilk, sour milk, cultured cream, kefir) and deals also with culture

preparation, factors inhibiting acid production and causing general defects, testing, and packaging materials. FL

888

[Automation of kefir manufacture by the 'in-bulk' method.] Avtomatizatsiya protsessy proizvodstva kefira rezervuarnym sposobom. [A book]

Brusilovskii, L. P.; Vainberg, A. Ya.

80pp. (1968) [10 ref. Ru] Moscow: Izdatel'stvo "Pishchevaya Promyshlennost"

This booklet deals with recent developments in the automation of kefir manufacture by the 'in-bulk' method in which the inoculated milk is incubated in tanks instead of in retail containers. Specialized individual instruments for controlling and signalling the product level, acidity, temp., etc. and complete control systems for use with jacketed tanks are described and illustrated and information given on their installation and operation. FL

889

[Production and use of starters in dairies.]

Proizvodstvo i primeneniye zakvasok v molochnoi promyshlennosti. [A book]

Bogdanov, V. M. Bannikova, L. A.

60pp. (1968) [3 ref. Ru] Moscow: Izdatel'stvo "Pishchevaya Promyshlennost"

This publication, intended for lab. and technical personnel in the dairy industry, deals with the micro-organisms (bacteria, yeasts and moulds) used in the manufacture of dairy products, preparation of cultures and starters under lab. and manufacturing conditions, preservation of cultures by drying and freeze-drying, preparation of bacterial concentrates, and control of the quality of milk used for cultures and of the quality of the cultures themselves. FL

890

[Soft ice-cream.] Myagkoe morozhenoe. [Book]

Olenev, Yu. A.; Fil'chakova, N. N.

42pp. (1972) [12 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.15r

The booklet gives information on the manufacture of dried mixes for soft ice-cream, design of freezers used in the USSR and other countries, changes that occur in soft ice-cream during short-term storage and on defects in consistency and structure of the product and measures for preventing them. FL

891

Ice cream. [A book]

Arbuckle, W. S.

Second edition. vii + 474pp. ISBN 0 87055 108 6 (1972) [Numerous ref. En] Westport,

Connecticut, USA: AVI Publishing Co. Inc. Price US \$19.00, Foreign \$20.00 [Dept. of Dairy Sci., Univ., College Park, Maryland, USA]

This complete revision of the previous edition includes much new information and many additional key references due to changes in the ice cream industry. Chapter headings are: Development of the ice cream industry (pp. 1-12, 11 ref.); Energy value and nutrients of ice cream (pp. 13-24, 16 ref.); Ice cream and related products classifications (pp. 25-33, 9 ref.); Composition and properties (pp. 34-58, 44 ref.); Ice cream ingredients (pp. 59-95, 66 ref.); Stabilizers and emulsifiers (pp. 96-106, 28 ref.); Flavouring and colouring materials (pp. 107-134, 40 ref.); Calculation of ice cream mixes (pp. 135-171, 10 ref.); Restandardizing and calculating some unusual mixes (pp. 172-191, 3 ref.); Calculating cost and percentage of overrun (pp. 192-207, 8 ref.); Mix processing (pp. 208-238, 22 ref.); The freezing process (pp. 239-266, 12 ref.); Packaging, hardening and shipping (pp. 267-277, 9 ref.); Soft-frozen dairy products and special formulas (pp. 278-291, 8 ref.); Sherbets and ices (pp. 292-302, 10 ref.); Novelties, fancy moulded ice creams and specials (pp. 303-319, 3 ref.); Defects, scoring and grading (pp. 320-337, 8 ref.); Sanitation and quality control (pp. 338-348, 8 ref.); Refrigeration (pp. 349-360, 2 ref.); Some laboratory tests often used in ice cream plants (pp. 361-374, 10 ref.); Sales outlets (pp. 375-386, 8 ref.); Formulas and industry standards (pp. 387-411, 17 ref.); and Soda fountain recipes (pp. 412-424, 1 ref.). Appendices include a historical chronology of the ice cream industry, weights, measures and plant inspection form and Federal Standards for frozen desserts. A 16pp. subject index is provided. SAC

892

[Manual on ice cream manufacture.] Spravochnik po proizvodstvu morozhenogo. [A book]

Azov, G. M.; Burmakin, A. G.; Gisin, I. B.; Dezent, G. M.

432pp. (1970) [35 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'

This manual covers the whole field of ice cream manufacture. In chapters, written by different authors, major aspects dealt with are: raw materials; formulae; manufacturing processes; equipment; technological, chemical, microbiological and organoleptic control during manufacture; packaging; sanitation and hygiene; and safety. The book, well illustrated and with a good subject index, is intended for technical personnel in the ice cream industry. FL

893

Products for the ice cream and ice lollie

industries. [A book]
Bush Boake Allen Ltd.

42pp. (Undated) [En] London, UK: Author
This publication, intended to give practical assistance to the manufacturer, covers mainly flavours, colours, dairy and other products used as ingredients, stabilizers and emulsifiers, formulae and syrups, and production of ice lollies. FL

894

[Ice cream cups, sherbets and fruit creams.]
Zmrzlinove pohary a kremy. [A book]
Nestaval, A.; Havlikova, J.
30pp. (1970) [Cs] Prague, Czechoslovakia: Merkur.
Price 3.50 Kcs

The booklet contains recipes for the preparation of fancy ice cream cups and various fruit creams with a few additional recipes for syrups and desserts served with ice cream cups and creams. STI

895

[Control of utilization of raw materials in butter and cheese factories.] Kontrol' ispol'zovaniya syr'ya na maslovel'nykh i syrodel'nykh zavodakh. [A book]
Machtin, D. I.

79pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.31 rouble.

This practically orientated book is designed for the dairy engineer and technician, and consists of the following chapters: Control of the raw materials received (pp. 7-11; milk, cream, other materials); Control of production of butter and casein (pp. 12-35; cream for buttermaking, full-cream butter, rendered butter, casein); Control of production of cheese and lactose (pp. 35-49; high-fat renneted cheeses, low-fat renneted cheeses, processed cheese, lactose); and Control of production of other milk products manufactured at butter and cheese factories (pp. 50-52; ice cream, whole-milk products, conc. and dried milk). A 28-page appendix lists useful practical data (e.g. conversion table for calculating 3.7% fat milk from actual fat content, standard losses during production of the various products, etc.) HBr

896

[Butter production.] Proizvodstvo masla. [A book]
Sirik, V. I.

200pp. (1969) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.36 rouble

This book is intended as a textbook for technical schools training buttermaking personnel. It contains the following chapters: Milk reception and processing (pp. 8-36); Production of cream and its preparation for buttermaking (pp. 36-62); Churning of cream (pp. 62-112); Continuous buttermaking (pp. 112-57); Technology of manufacture of various kinds of butter (pp. 158-

76); and Packaging, storage and transport of butter, shelf-life and defects (pp. 177-97). HBr

897

[Industrial buttermaking; science and technique.] Beurrerie industrielle - science et technique de la fabrication du beurre. [A book]
Pointurier, H.; Adda, J.
viii + 459pp. (1969) [Numerous ref. Fr] Paris, France: La Maison Rustique

This up-to-date book deals comprehensively with the subject, covering all the important aspects, including recent developments. It is divided into 18 chapters, comprising: milk fat; composition, structure and consistency of butter; organoleptic properties of butter, and lactic starters used in butter manufacture; buttermaking processes; pasteurization and deaeration of cream; ageing of cream; biological ripening of cream, butter manufacture in the churn; continuous butter manufacture; butter packaging; farm, buttermilk and whey butter; by-products of butter manufacture; quality and defects of butter; different methods of butter preservation and marketing (sterilized butter, butter oil, frozen cream, different butter products); construction of the butter factory and installation of equipment; cleaning and disinfection; production control; and legislation and regulations concerning butter and cream. Statistics on production and consumption of and trade in butter are given for a number of selected countries. References are given separately in each chapter and there is a good subject index. FL

898

[Storing butter.] Skladovani masla. [A book]
Vedlich, M.; Benesova, L.; Matouskova, E.
255pp. (1968) [Numerous ref. Cs] Prague: STI.
Price 41,55 Kcs.

The book is intended for those working in the dairy industry, in freezing plants, for students and for distributors. The problem of butter storage is discussed, as well as the technology of butter manufactured for storing, new methods of storing milk fat, the technology of storage, the control of the quality of butter and milk fat, and re-processing butter. STI

899

[Butter and margarine: a scientific study.] Butter und Margarine: eine wissenschaftliche Studie. [A book]
Schweigart, H. A.

72 pp. (1966) [128 ref. De] Hanover: Georg Pinkvoss oHG. [Inst. für Biochemie der Vitalstoffe und Ernährung, Hanover, W. Germany]

This booklet is basically a review-type exposition of current thinking on the physiological and nutritional aspects of butter and margarine, with particular reference to the

health controversy. The subject is covered in 7 chapters entitled 'Manufacture of butter and margarine' (pp. 9-18), 'What are the basic characteristics of the different fats?' (pp. 19-25), 'How is fat transport effected in the body?' (pp. 26-42), 'What is the physiological position as regards the fatty acids?' (pp. 42-53), 'Nutrition: atherosclerosis and myocardial infarct' (pp. 54-57), 'Scientific knowledge and consequences' (pp. 58-65), and 'Demographic aspects of fat consumption' (pp. 65-69). The overall conclusion reached is that both butter and margarine have an important role to play in nutrition. The booklet contains a useful subject index. HBr

900

[Cheese lexicon. All about cheeses throughout the world.] Käse-Lexikon. Rund um den Käse in der ganzen Welt. [Book]
Koster, W.
513pp. (1973) [De] Hildesheim, Federal Republic of Germany, Heinrichs Verlag KG Price DM 76,-

This comprehensive publication contains data on a very large number of individual cheese varieties, which are arranged in alphabetical order with indication of the country of origin and information on manufacture, composition etc. Also included are statistics on cheese production in individual countries, international cheese trade etc., and information on ancillary materials used in cheesemaking, cheese by-products, production methods and equipment, methods for testing cheese and legislation on cheese. FL

901

[Sovetskii cheese.] Sovetskii syr. [Book]
Granikov, D. A.
248pp. (1972) [Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost', Price 1.37 roubles

This book, which covers all the stages of Sovetskii cheese manufacture, is intended for specialists in the cheese industry as well as for teaching establishments. It is divided into 8 chapters dealing with: milk as the raw material for Sovetskii cheese manufacture; heat treatment of milk and standardization; milk ripening and use of the starter and propionic acid bacteria; coagulation of milk with rennet; in-vat treatment of the coagulum and curd; pressing and salting; ripening and microstructure; and procedure and equipment for the manufacture of Sovetskii cheese. The book is well documented with tables, graphs and drawings, and well referenced. FL

902

[All about cheese.] Alles über Käse. [Book]
Landesvereinigung der Bayerischen Milchwirtschaft e.V.
32pp. (1971) [De] Munich, German Federal

Republic: Author

This booklet gives brief information in popular form on a number of aspects including cheese manufacture, cheese varieties, nutritional value, and various points concerning the handling and use of cheese in the home. FL

903

[Technology of Bryndza cheese.] Tekhnologiya syra-brynza. [A book]
Nikolaev, A. M.
84pp. (1971) [6 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.12 rouble

Various aspects of milk for Bryndza manufacture are discussed, covering its production, treatment on the farm and quality requirements. The major chapter is devoted to the technology of Bryndza manufacture from cows' milk, ewes' milk and mixed milk, giving full details of processes and equipment, including mechanization, and methods used in dairy plants in Bulgaria. Major defects of this cheese and preventative measures are outlined. FL

904

[Manufacture of soft cheeses.] Proizvodstvo myagkikh syrov. [A book]
Makarin, A. M.
126pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo "Pishchevaya promyshlennost". Price 31 kop.
This book intended for specialists in the cheese industry consists of 2 parts. The 1st part deals with classification of soft cheeses including description of microorganisms occurring in soft cheeses, their importance for ripening and flavour development and discusses quality of milk used for soft cheese manufacture. In the 2nd part production processes for the individual types of soft cheeses are described including faults in soft cheese manufacture and their elimination. STI

905

Ripened semisoft cheeses. [A book]
Olsen, N. F.
78pp. (1969) [14 ref. En] New York, USA: C. Pfizer & Co. Inc.

In this monograph semisoft cheeses are defined as cheeses which are less firm than Cheddar and Swiss cheeses but firmer than varieties such as Camembert and Cottage cheese. Included are the following sections: Surface- ripened cheeses (pp. 13-42, 40 ref.), dealing with the characteristics of surface growth, flavour components, the manufacture of Brick and Limburg and mentioning briefly Port du Salut, Trappist, Oka, Saint Paulin, Bel Paese, Tilsit and Liederkrantz cheeses; Other semisoft cheeses (pp. 53-55, 14 ref.) covering the manufacture of Edam, Gouda, Münster and Monterey with brief notes on Maribo, Fynbo,

Molbo and Dariworld cheeses; Defects and their prevention (pp. 56-67, 16 ref.); Potential contamination with pathogenic microorganisms (pp. 68-72, 19 ref.); and Mechanization (pp. 73-78, 14 ref.). SAC

906

[Manufacture of hard cheeses of Edam and Emmental type.] Vyroba tvrdych syru eidamskeho a emmentalskeho typu. [A book.]

Olšansky, C.; Knez, V.

289pp. (1971) [Cs] Prague, Czechoslovakia:

CAZ-VUPP, STI. Price 77.60 Kcs

This book, written for technicians engaged in cheese manufacture, contains the following chapters: biochemistry of manufacture and ripening of Edam and Emmental cheeses; milk as raw material for cheese manufacture; manufacture of Edam and Emmental cheeses; ripening of Edam and Emmental cheeses; mechanization and automation in the production process and ripening of Edam and Emmental cheeses and major points in designing cheese plants and ripening cellars for the manufacture of Edam and Emmental cheese. STI

907

[Swedish consumer preference and attitudes towards soft cheese.] Gouts et attitudes des consommateurs suédois à l'égard des fromages à pâte molle. [A book] France, Centre National de Commerce Extérieur 94pp. (1970) [Fr] Paris, France: Author. Price 200 francs

This detailed report (46 tables) is based on a questionnaire survey of 300 cheese purchasers interviewed at points of sale in Stockholm and indicates Swedish preference for various soft cheeses, of which France is the principal importer to Sweden (50% of imports in 1968). SAC

908

[Yoghurts, soft cheeses and similar products in the Netherlands, Belgium, Italy and Germany.] Les yaourts, fromages frais et produits assimilés aux Pays-Bas, en Belgique, en Italie et en Allemagne. [A book]

France, Centre National du Commerce Extérieur 310pp. (1971) [Fr] 10, Avenue d'Iena, Paris-16, France: Author. Price 114.70 francs

The book compares the development and principal characteristics of the production of soft cheeses, yoghurt and similar products in the Common Market countries with reference to types of product, their manufacture, distribution, prices, principal market, types of dairy industry, relevant legislation in each country, etc. [From *Revta esp. Lech.* 1971 (81) 221-222.] SAC

909

[Principles of cheesemaking.] Osnovy syrodeliya. [A booklet]

Dilanyan, Z. Kh.

2nd edition 93pp. (1970) [Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 0.22 rouble

This booklet, intended for workers in the cheesemaking industry and first published in 1965, has been brought up to date and slightly enlarged. BEPC

910

[Cheese manufacture along new lines.] Die kaasbereiding in nieuwe banen. [A book] Roosenschoon, C. F.

28 pp. (1970) [Nl] Leeuwarden, The Netherlands: Bond van Coöperatieve Zuivelfabrieken in Friesland

This is a detailed, chronological account of the technological developments which resulted from the activities of the Commissie Mechanisatie Kaasbereiding (Committee for the Mechanization of Cheese Manufacture) which cover the yr 1958-65. A most valuable contribution to the development work was made by the firm Bijlenga NV, which made all experimental plant and equipment. The combined efforts have resulted in the development of a highly mechanical, largely automated system of cheese manufacture which is flexible and labour saving and has already been adopted in a number of countries, including Australia, R. of S. Africa and USSR. The text is illustrated by excellent photographs, and flow charts. NdeV

911

[Cheese and cheese dishes.] [A book]

Knez, V.; Sedlackova-Pacova, H.

196pp. (1970) [Cs] Prague, Czechoslovakia: SNTL. Price 15.- Kcs.

The book contains dozens of recipes for the preparation of meals from various types of cheese. The first chapters deal in brief with the manufacture of individual types of cheese, their handling and storage and the importance of cheese in human nutrition. The recipes include soups, snack foods, spreads, sundries, meat dishes, vegetable dishes, sauces, pastries, sweets and desserts, and egg meals with cheese. STI

912

[Survey of the Dutch dairy products market: consumption of cheese in the home.] Verkenning Nederlandse Zuivelmarkt: Het gebruik van kaas in het gezin. [A book] Anon.

23pp. (1969) [Nl] Rijswijk, The Netherlands: Nederlands Zuivelbureau. Price 5 guilders.

In design, this survey is similar to that carried out in the same yr (1968) for milk and selected milk products [See preceding abstr.] and identical samples were used in both surveys. The

frequency of use of cheese at 4 different stages of ripeness was investigated for Gouda, Edam, spiced cheese ('komijnekaas' and 'nagelkaas'), cream cheese ('roomkaas'), cheese spreads, farmhouse cheese and foreign varieties as a group. There was a marked preference for green and slightly matured cheese in all regions, age groups and income groups. The most popular cheese was slightly matured Gouda, used regularly by 35% of the sample. 80% of the sample never used any of the foreign varieties. For use with bread, 60% of the sample preferred cheese to meat products, 25% preferred meat products and 15% expressed no preference. 68% of the sample owned a refrigerator and $\frac{1}{3}$ of the refrigerator owners used it for storage of cheese. 26% of all the housewives kept the cheese in plastics bags while 23% used plastics trays or tupperware. Data on the use of cheese in home cooking and baking, between meals and at week-ends are included. NdeV

913

[Catalogue of Spanish cheeses.] *Catalogo de quesos espanoles*. [A book]
Spain, Ministerio de Agricultura, Direccion General de Ganaderia
75pp. (1969) [Es] Madrid: Ministerio de Agricultura

This beautifully printed catalogue presents for each cheese variety quoted a colour photograph, a map indication of the region of manufacture, and information on alternative names, similar varieties in other parts of Spain, annual production, raw materials, characteristics, composition, method of manufacture, shelf life and packaging. The following varieties are listed (alternative names in parentheses): ewes' milk cheeses, Aragon (Tronchon), Bellos (Bellusco), Burgos, Cervera (Fresco valenciano), Gorbea, Grazalema, Idiazabal (Urbia, Aralar, Urbasa), Manchego, Orduna, Oropesa (La estrella), Pedroches, Puzol (Fresco valenciano), Serena, Torta del Casar, and Villalon (Pata de mulo); cows' milk cheeses, Armada (Sobado, Calostro), Cabrales (Cabraliego), Cebrero (Queixo do Cebreiro), Gamonedo (Gamoneu), Leon, Mahon, Pasiego prensado, Pasiego sin prensar, Quesucos (Quesines, Aliva, Lebena), San Simon, Tetilla (Perilla), and Ulloa (Gallego, Patela, Perilla); goats' milk cheeses, Alicante, Cadiz, Camerano (Fresco de montana), Malaga, Soria and Valdetega. SKK

914

[Current cheese situation in Belgium. III. Cheese consumption in Belgium] [A book]
Ackerman, L.
60 pp. (1969) [Fl] Brussels: Landbouw-Economisch Instituut

915

Current cheese situation in Belgium. II. Trade in Belgian semi-hard cheeses. [A book]
Ackerman, L.; Dumeez, M.

58 pp. (1968) [Fl] Brussels: Landbouw-Economisch Instituut

916

[Rossiiskii cheese.] *Rossiiskii syr*. [A book]
Nikolaev, A. M.

88pp. (1968) [114 ref. Ru] Moscow: Izdatel'stvo "Pishchevaya Promyshlennost"

In this booklet, intended for technical dairy personnel, the author covers all major aspects of Rossiiskii cheese manufacture, dealing in particular with the requirements of the milk used, treatment of the milk, coagulation and in-vat treatment of the curd, and moulding, pressing, salting, ripening and grading of the cheese. Information is also given on defects of Rossiiskii cheese and on bacteriological and chemical control of its manufacture. FL

917

The Wine and Food Society's guide to cheese and cheese cookery. [A book]

Layton, T. A.

254 pp. (1967) [En] London: The Wine and Food Society Ltd. Price 45s

A major portion of this beautifully illustrated book is devoted to a glossary of the world's cheese varieties, including brief descriptions of each of several hundred varieties. The remainder of the book is designed primarily to wet the appetite of the connoisseur, including chapters on 'wine with cheese' and 'classified cheese recipes'. Excellent indexes are included. EJM

EGGS

918

Egg science and technology. [Book]

Stadelman, W. J.; Cotterill, O. J.

vi+314pp. ISBN 0 87055 011 X (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$17 (USA) \$18 (Foreign) [Dept. of Animal Sci., Purdue Univ., Lafayette, Indiana, USA]

The subject is covered under the chapter headings: The egg industry, by W. J. Stadelman (pp. 1-5, 4 ref.); Egg production practices, by M. H. Swanson (pp. 6-25, 19 ref.); Quality identification of shell eggs, by W. J. Stadelman (pp. 26-37, 32 ref.); Quality preservation of shell eggs, by W. J. Stadelman (pp. 38-45, 19 ref.); The microbiology of eggs, by R. G. Board (pp. 46-60, 53 ref.); Chemistry of eggs and egg products, by W. D. Powrie (pp. 61-90, 178 ref.); Nutritive value of

eggs, by F. Cook & G. M. Briggs (pp. 91-109, 40 ref.); Merchandizing eggs in supermarkets, by E. C. Oesterle (pp. 110-125); Egg-products industry, by O. J. Cotterill (pp. 126-131, 6 ref.); Egg breaking, by O. J. Cotterill (pp. 132-142, 12 ref.); Freezing egg products, by O. J. Cotterill (pp. 143-152, 60 ref.); Egg product pasteurization, by F. E. Cunningham (pp. 153-178, 105 ref.); Desugarization, by W. M. Hill & M. Sebring (pp. 179-189, 51 ref.); Egg dehydration, by D. H. Bergquist (pp. 190-223, 29 ref.); Quality control and product specification, by J. M. Gorman (pp. 224-240, 20 ref.); Functional properties in foods, by R. E. Baldwin (pp. 241-272, 116 ref.); Uses other than in human foods, by D. Jackson & O. J. Cotterill (pp. 273-277, 18 ref.). A chronological list of US patents published in the past 30 yr on egg products, processes and equipment is given. A bibliography of US PhD theses on eggs and egg products is also given. JN

919

Egg quality: a study of the hen's egg. [A book]
Carter, T. C. (Editor)
396 pp. (1968) [Numerous ref. En] Edinburgh:
Oliver & Boyd. Price 126s [Poultry Res. Centre,
Edinburgh, Scotland]

This book contains the papers and discussions of the 4th Symposium organized by the British Egg Marketing Board at Harper Adams Agric. Coll., Edgmond, Newport, Shropshire, England on 20-22 Sept. 1967. Papers presented were: 'The structure and formation of the shell and shell membranes', by K. Simkiss (pp. 3-25); 'The gross composition, chemistry and physico-chemical basis of organization of the yolk and the white', by F. S. Shenstone (pp. 26-58); 'The proteins of egg white', by C. N. A. Baker (pp. 67-108); 'Macromolecular components of egg yolk', by W. H. Cook (pp. 109-132); 'Microbiology of the egg: A review', by R. G. Board (pp. 133-162); 'Disease and egg quality', by B. S. Hanson (pp. 171-180); 'Eggs in virology', by L. N. Payne (pp. 181-196); 'The measurement of certain egg quality characteristics: A review', by R. G. Wells (pp. 207-250); 'Storage of eggs', by H. R. Hinton (pp. 251-261); 'The science and technology of egg products manufacture in the United States', by R. H. Forsythe (pp. 262-304). JN

920

[Egg processing technology.] Technologia jaj. [A book]
Hojan-Lubawa, U.; Niewiarowicz, A.; Plotka, A.; Tarkowski, W.; Wos, Z.
370pp. (1970) [Numerous ref. Pl] Warsaw, Poland:
Wydawnictwo Naukowo-techniczne. Price 42 zł.

The chemical composition of eggs and their nutritive value, methods of laying-hen breeding, the effect of breed on egg quality, and purchasing of raw material for the egg processing industry are discussed. The book further describes

shell egg processing methods, storage of shell eggs, processing of egg products and egg and egg products microbiology. STI

921

[Technology of commercial egg production.]
Teknologiya promyshlennogo proizvodstva yaits.
[A book]
Danilova, A. K.; Krylov, V. S.; Naidenskii, M. S.; Shpits, I. S.
311pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo
Kolos. Price 0.65 rouble

The subject is covered under the following chapter headings: Formation of the egg and its structure (pp. 8-19); Chemical composition of the egg, and the effect of various factors on its quality (pp. 20-87); Poultry raising (pp. 88-133); Systems for maintaining laying hens (pp. 134-176); Conditions required for rearing poultry (pp. 177-255); Counting, sorting and packing eggs (pp. 256-270); and Economics and planning of egg production (pp. 271-310). HBr

FISH

922

[Reference book for technologists in the fish industry.] Spravochnik tekhnologa rybnoi promyshlennosti. [A book]
Novikov, V. M.
528pp. (1971) [Numerous ref. Ru] Moscow,
USSR: Izdatel'stvo Pishchevaya Promyshlennost'.
Price 1.90 roubles

This book deals in 8 chapters with the following subjects: food value of fish; fish supply, transport and storage of raw fish; transport and storage of fish as raw material; fish processing boats; fish chilling; fish freezing; use of refrigeration in fish storage and fish product transport; and principles of technological control. STI

923

[Equipment in the food industry 1969.]
Oborudovaniye pishchevoi promyshlennosti. [A book]
Anon.
215pp. (1971) [Numerous ref. Ru] Moscow,
USSR: VINITI. Price 1.48 roubles

The techniques of sea and ocean fishing and the equipment of modern fishing and processing boats are reviewed under the headings: Development of world fishing; Fishing equipment and fishing techniques; Technological equipment; Refrigeration equipment on ships; Fishing industry and its exploitation. STI

924

[Equipment for fish industry plants and boats.]
Oborudovanie predpriyatiy i sudov rybnoi
promyshlennosti. [A book]

Chupakhin, V. M.

484pp. (1969) [22 ref. Ru] Moscow, USSR:
Izdatel'stvo Pishchevaya Promyshlennost'. Price
1.06 roubles

This book deals with machinery and equipment
used in fish processing on land and sea.
Characteristics of individual machines are given
together with theoretical principles for their
construction. Formulae for calculating energy
consumption are also given. STI

925

[Sea fish as food.] Seefisch als Lebensmittel. [A
book]

Kietzmann, U.; Priebe, K.; Rakow, D.;
Reichstein, K.

368pp. (1969) [Numerous ref. De] Berlin, W.
Germany: Paul Parey. Price DM 68

This extremely well-produced book contains the
following chapters: Review of significance of sea
fish for human nutrition and of methods of
catching (pp. 11-30, 6 ref.); General fish science
(covers morphology and biology) (pp. 31-58, 15
ref.); Fish, crustaceans and mussels sold on
the W. German fish market (pp. 59-142, 64 ref.);
Differentiation of sea fish fillets and crustacean
musculature (pp. 143-59, 16 ref.); Evaluation of
fish, crustaceans and mussels as foods (pp. 160-
250, 201 ref.); Frozen fish (pp. 251-68, 22 ref.);
Hygiene between catch and consumer (pp. 269-81, 13
ref.); and the food veterinary surgeon and special
training for supervision of sea fish markets (pp.
282-85). An appendix (pp. 286-339) gives the
relevant sections of the major W. German laws
governing trade in sea fish, and a 2nd appendix
(pp. 340-52) gives a number of foreign-language
equivalents of the German fish name. 19 pp. of
coloured photographs of sea fish, sea fish fillets
and various defects and diseases are included. A
16-pp. subject index is appended. HBr

926

Soviet-Cuban fishery research. [A book.]

Bogdanov, A. S. (Editor)

355pp. (1969) [numerous ref. En] Published for
the US Dept. of the Interior and National Science
Foundation by the Israel Programme for Scientific
Translations

Results of 3 years joint investigations by Soviet
and Cuban scientists are summarized in this
collection of papers, translated from the
Russian. A complex examination was made of poorly
explored regions of the Atlantic Ocean, including
the Caribbean Sea, the Gulf of Mexico and adjacent
sub-tropical areas. The papers are presented in 2
sections: Investigation of fish resources - a
study of the condition of resources of commercial
marine fish, patterns of their distribution, and
biology and features of their behaviour related to
their environment; Organization and techniques of
fishing and fish processing - investigations were
carried out simultaneously on organization and

techniques of fishing, increasing the storage
period of caught fish, mechanization of
processing, optimal utilization of the raw
material for food and manufactured products. AB

927

[Quality of fish and fish products.] Qualität von
Fisch und Fischwaren. [A book]

Pesle, O.; Schwierzina, A.

257pp. (1970) [De] Leipzig, E. Germany: VEB
Fachbuchverlag Price 16.50 M

This well-produced book, designed to be of
practical assistance to all engaged in the fish
trade, concentrates to a large extent on
identification, causes and elimination of quality
defects in the end product at all stages of
processing (storage, transport, packaging etc.).
The main sections are: Live fish (pp. 13-17);
Fresh seawater fish (18-28); Fresh freshwater fish
(29); Frozen fish (30-38); Salted herrings (39-
56); Hot-smoked products (57-68); Cold-smoked
products (69-72); Marinated products (73-84); High-
quality marinated products (85-89); Fish products
for frying (90-97); Fish products in aspic (98-
102); Fish preserves in oil (103-08); Sprats in
natural juice (110-14); Fish preserves (115-22);
Caviar (124-28); pH value (130-32); Instruments
for quality control (134-36); Legal requirements
(137-247). A list of relevant E. Germany standards
and a 7-pp. subject index are included. HBr

928

[Fresh-water fisheries of the world.] Svetove
sladkovodni rybarstvi. [A book]

Berka, R.; Krupauer, V.

121pp. (1970) [133 ref. Cs] [Prague,
Czechoslovakia: UVTI. Price 5 Kcs]

A survey of fresh water fisheries and further
trends in USSR, eastern European countries, North
America and South America is given. The world
production of salt water fish is also discussed
and a comparison drawn between salt water and
fresh water fish production. STI

929

[Investigation of fishing grounds.] Promyslovaya
razvedka ryby. [A book]

Yudovich, Yu. B.; Baral, A. A.

302pp. (1969) [Ru] [Moscow, USSR: Pishchevaya
promyshlennost'. Price 76 k]

This book describes the principles, methods and
means of industrial investigation to attain
increased effectiveness of the fishing fleet. It
covers water areas and the effect of the external
environment (depth of water, surface of sea bed,
water currents, water temp., salinity, food of sea
fauna and migration of fish); shoals of fish for
fishing, shoaling places; shifting speed of the
fish, evaluating numerical size of shoals;
operative research into fishing grounds and
research perspectives; technical means of
investigating fishing grounds (ships, technical
characteristics of trawlers, description of
instruments and equipment for various types of
reconnaissance fishing boats); organization of

reconnaissance of the fishing grounds in the USSR; and methods of reconnaissance according to the individual types of industrially processed fish from the Pacific, Atlantic and Indian Oceans and from enclosed seas (Azov, Black, Caspian Seas). STI

930

[Location of fish industry in the USSR.]

Razmeshchenie rybnoi promyshlennosti in SSSR. [A book]

Sysoev, N. P.

108pp. (1967) [Ru] Moscow: Pishchevaya promyshlennost' Price 35 k.

The development and location of the fish industry in Russia and principles of distributing industrial plants under socialism are discussed. The peculiarities of the fish industry and their effect on the distribution and period of renewal of fisheries in the pre-war five-year plans, the characteristics of fishing

according to the fish species, the fish industry, and the prospects for the development and distribution of the industry are mentioned. STI

931

[Products of sea fishing, preserved and semi-preserved packs: standards of manufacture.]

Anon.

Revue de la Conserve 24 (10) 219 (1968) [Fr]

The 150 page booklet, published by the Confederation des Industries de Traitement des Produits des Pêches Maritimes, gives the texts of French legislation concerning sea fish, especially canned and semi-preserved sea fish packs, also shellfish and mollusc packs. It is also concerned with the products of the brining-curing, drying and quick-freezing industry. MBCo

932

[Management of fish-processing factories and fish production in reservoirs.]

Organizatsiya khozrascheta na rybozavodakh i prudoxykh rybovodnykh khozyaistvakh. [A book]

Yushin, V. A.

240 pp. (1968) [8 ref. Ru] Moscow: Izdatel'stvo "Pishchevaya promyshlennost'"

This book, intended for economists, planners and technical and other personnel in the fish industry and on fish farms, contains the following major chapters: methods of planning production in individual departments of fish-processing factories; methods of planning production on farms producing fish in reservoirs; departmental planning of labour and wages; and planning the costs and financing in fish-processing factories and fish production in reservoirs. FL

933

Market for frozen fish in OECD member countries 1964-68. [A book]

Anon. (Organisation for Economic Co-operation and Development)

120pp. (1969) [En] Paris, France: Author. Price 21s

The markets for frozen fish, salted fish and wet fish are first considered and the inter-relationship between the 3 markets discussed. Details of production, price trends and export of frozen fish are given for: 'Canada' (pp. 14-20); 'Denmark' (pp. 21-25); 'France' (p. 26); 'Germany' (pp. 27-31); 'Greece' (p. 32); 'Iceland' (pp. 33-37); 'Japan' (p. 38); 'Netherlands' (p. 39); 'Norway' (pp. 40-44); 'Spain' (pp. 45-47); 'Sweden' (pp. 48-49); 'United Kingdom' (pp. 50-57); 'United States' (pp. 58-64); and 'Eastern Europe' (pp. 65-66). 20 figures and 33 tables (pp. 69-120) provide available data on exports, imports, landings, utilization and prices of frozen fish in general or of individual fish sp. VJG

934

[Economic incentives in the fish industry under new conditions of planning.] Ekonomicheskoe stimulirovanie v rybnoi promyshlennosti v novykh usloviyakh planirovaniya. [A book]

Mal'tsev, I. P.

161pp. [Ru] Moscow: Pishchevaya Promyshlennost' Price 46 k.

The book deals with the following topics: fundamental planning indices; vol. of production and earning funds; total income; building investments introduction of new equipment; planning indices for plants; and cost accounting. Calculation and analysis of results of economic activity, fixing prices, effect of prices on fish products and their influence on cost accounting are included. STI

935

[Products from new types of sea fish.] Rybnaya produktsiya iz novykh okeanicheskikh ryb. [A book]

Lazunova, A. S.; Lukoshkin, S. A.

28pp. (1969) [Ru] Moscow, USSR: Pishchevaya promyshlennost'. Price 7

This publication is intended for technical employees working in the fish processing industry and deals with the characteristics of new types of sea fish; the method of calculating production costs and elaborating the prices of new fish products in the Myasorybtorg enterprise; and the organization of the market for new types of cheap fish. STI

936

[Industrial fish processing.] Promyshlennaya obrabotka ryby. [Book]

Branderburg, W.; Kramer, H.

291pp. (1972) [many ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya promyshlennost'. Price 1.15 r

This book is a translation of the German version (Industrielle Fischverarbeitung, VEB Fachbuchverlag, Leipzig). It contains the following

chapters: Fresh chilled fish storage (pp. 5-61); Fish freezing (pp. 61-76); Fish thawing (pp. 76-81); Fish drying (pp. 81-83); Fish curing (pp. 83-91); Fish smoking (pp. 91-127); Cold fish salads (pp. 127-145); Fried fish products (pp. 145-167); Cooked fish products (pp. 167-180); Anchovies (pp. 180-187); Fish preserved in oil (pp. 187-194); and Canned fish products (pp. 194-285). STI

937

[**Technology of fish products and the equipment involved.**] Tekhnologiya rybnikh produktov i tekhnologicheskoe oborudovanie. [Book]
Novikov, V. M.

216pp. (1972) [19 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'

This book, designed for use in the special educational establishments run by the Ministry of the Fish Industry of the USSR, contains the following chapters: Fish and other marine products as raw material; Transport and preliminary processing of fish and other marine products; Production and storage of live, chilled and frozen fish and of fillets and comminuted fish; Production of salted, brined and marinated products; Curing, drying and smoking of fish; Production of preserves, canned products and culinary items; Production of fodder and technological products from fish; Production of medicinal oil and vitamin preparations; Processing of marine mammals; Production of food and technological products from marine invertebrates; and Production of food and technological products from algae. HBr

938

[**Production of meal, fat and protein-vitamin preparations in the fishing industry.**] Proizvodstvo muki, zhira i belkovo-vitaminnykh preparatov v rybnoi promyshlennosti. [A book]
Kulikov, P. I.

263pp. (1971) [59 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.87 rouble

This book, designed for use by students at colleges with fishery departments and by engineers and technicians in the fish industry, contains the following chapters: Raw materials for production of fish meal, fat and protein-vitamin preparations (pp. 14-25); Production of fodder meal and fat (pp. 26-152); Production of concentrates, fodder, protein concentrates and hydrolysates (pp. 152-167); Processing of fat-containing raw material (pp. 167-225); Processing of whales (pp. 225-229); Production of edible fish meal (pp. 229-242); Production of medicinal products (pp. 242-245); Production of fish glue (pp. 245-252); and Production of guanine (pp. 252-260). HBr

939

[**Technology of fish products.**] Tekhnologiya rybnikh produktov. [A book]

Bykov, V. P.

376pp. (1971) [18 ref. Ru] Moscow, USSR: Izdatel'stvo "Pishchevaya promyshlennost". Price 53 k.

The book contains the following chapters: fish as raw material; live fish supply; treatment of raw fish material; cooling of fish; fish curing; caviare preservation; fish drying; fish smoking; manufacture of tinned fish products; feedingstuffs manufacture and production of technical products from fish; sea mammals processing; medical fats and oils manufacture and production of vitamin preparations; crab processing; packaging and other ancilliary materials; principals of processing control. STI

940

[**Technology of seafoods.**] Technologia zywniosci pochodzenia morskiego. [A book]

Sikorski, Z. E.

574pp. (1971) [Numerous ref. Pl] Warsaw, Poland: Wydawnictwa Naukowo-techniczne. Price 100 zl.

This book contains the following chapters: Biological and technical basis for raw material supply; Chemical composition of major sea raw materials; Technological characteristics of seafoods; Preliminary mechanical treatment; Chilling and cold storage; Freezing and storage at low tem.; Fish curing; Smoking; Fish drying and protein concentrates manufacture; Manufacture of canned fish; Smoked fish production; Use of irradiation; Treatment of by-products; and Design and layout of fish plants. STI

941

[**Physical methods of fish processing.**] Fizicheskie metody obrabotki ryby. [A book]

Sherstyuk, V. N.; Belyaev, P. L.

248pp. (1971) [142 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.04 roubles

Problems connected with electrical, vibrational and other physical methods of fish processing are dealt with. The main chapters are: Mechanical equipment in the fish industry; Electrical methods of fish processing; Fish and sea products treatment by means of high-frequency current; Use of IR radiation in fish processing; Application of UV rays in the fish industry; Fish and sea products treatment in an electrostatic field; and Application of ionizing radiation in the fish industry. STI

942

[**Fish processing on refrigerator ships.**] Kholodil naya obrabotka ryby na refrizheratornykh sudakh. [A book]

Shamrai, V. L.

79pp. (1971) [8 ref. Ru]

This paperback booklet is designed for use by workers in the fish processing industry, and consists

of the following chapters: Storage of fresh fish on trawlers and refrigerator ships (pp. 3-10); Transfer of fish from trawlers to refrigerator ships (pp. 10-13); Preparation of fish for freezing (pp. 13-29); Freezing and glazing of fish (pp. 29-51); Quality of frozen fish (pp. 51-66); Packaging and labelling of frozen fish (pp. 68-75); and Hygiene of fish processing (pp. 75-79). HBr

943

[Bases of automation in the fish processing industry.] Osnovy avtomatiki i avtomatizatsii proizvodstvennykh protsessov ryboobrabatvyvayushchei promyshlennosti. [A book] Eidel'shtein, I. L. 320pp. (1971) [87 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.95 rouble

The book is written mainly for the use of university students and specialists in the fish industry and enterprises engaged in designing fish processing equipment. The book contains the following chapters; Automation systems; Control and measuring apparatus; Automatic regulation; and Automation in fish processing plants. STI

944

[Improving quality of fish products.] Povyshenie kachestva rybnikh produktov. [A book] Nikitin, B. P.

318pp. (1970) [Ru] Moscow, USSR: Izdatel'stvo Pishchevaya promyshlennost'. Price 1.23 roubles

Individual chapters of the book deal with: Quality of fish products and its assessment; Main trends in fish processing; Physiological characteristics of various fish products and their preservation; Principles and techniques of sensory evaluation of fish products; Ways of improving the quality of individual groups of fish products; Better packaging of fish products; Transportation and distribution; Organization principles. STI

945

[Fundamentals of complex mechanization of fish processing.] Osnovy kompleksnoi mekhanizatsii obrabotki ryby. [A book] Terent'ev, A. V.

432pp. (1969) [82 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 2.92 roubles

This well-produced book is intended for engineers, researchers and designers in the fishing industry and students of universities and colleges with fishery departments. Chapters are: Physical and mechanical properties of fish and fish products (pp. 5-59); Hydraulic systems for transporting fish and ancillary materials (pp. 60-152); Pneumatic systems for transporting fish and fish meal (pp. 153-84); Methods and equipment for reception and distribution of fish at the processing factory (pp. 185-247); Methods of mechanizing and automating fish-cutting systems (pp. 248-99); Mechanization of barrelling and

crating (pp. 300-32); Automatic lines for thermal processing of fish (pp. 333-80); and Complex mechanization of the pickling process (pp. 382-426). HBr

946

[Processing of herring on factory ships.] Obrabotka sel'di na promyslovyykh sudakh i plavbazakh. [A book]

Shamrai, V. L.

211pp. (1969) [37 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 0.69 rouble

This book is designed for persons engaged in the fishing industry, particularly those on factory ships. Chapters are: Nutritive value of fish meat (pp. 4-12); Post mortem changes in fish and their causes (pp. 12-14); Technology of herring brining (pp. 14-37); Factory ships (pp. 38-67); Floating bases (pp. 67-124); Manufacture of canned Atlantic herring in special brine (pp. 124-62); Preserving and auxiliary materials (pp. 162-69); Barrels (pp. 169-80); Defects of brined herring and their causes (pp. 180-91); and Operational sanitation and personal hygiene in the fish industry (pp. 192-97). A bibliography containing 37 ref. (for the period 1940-1966) is included. HBr

947

[Prevention and elimination of deficiencies in fish products.] [A book]

Nikitin, B. P.

241pp. (1969) [Ru] Moscow, USSR: Pishchevaya promyshlennost. Price 81 k.

This book by a well-known specialist deals with production control, quality control, standardisation and treatment of fish and fish products. It includes classification of deficiencies, methods for their identification and prevention. Sanitation and technical microbiology. Conditions and causes of deficiencies and how to eliminate them. Technological procedures in the processing of fish products, continuity of the production process and time limits for processing the raw material. Choice of processing methods, elimination of faults and deficiencies in production. Current deficiencies in certain groups of goods. Deficiencies encountered in fresh fish. Deficiencies in undercooled and frozen fish, in salted fish, in spawn, in smoked, pickled, dried and preserved fish and in tinned fish and semi-preserved fish. STI

948

[Application of polymers in the fish industry.] [A book]

Balamutov, A. S.; Brudastova, M. A.;

Ilyukhin, A. I.

50pp. (1968) [Ru] Moscow, USSR: Pishchevaya promyshlennost Price 17 k

The book describes the characteristics of polymer materials, their physico-chemical properties,

methods of sealing, etc. It is intended for technical personnel working in the fish industry and for hydrologists. Application of polymers in the production of granulated fish food is described. STI

949

[Equipment in fish processing factories.]

Tekhnologicheskoe oborudovanie ryboobrabatyvayushchikh predpriyatiy. [A book] Chupakhin, V. M.
3rd edition revised 648pp. (1968) [27 ref. Ru]
Moscow: Izdatel'stvo 'Pishchevaya Promyshlennost'
Price 1.32 Roubles

This book is intended primarily for students of food colleges and for the technical and res. staff of relevant factories and res. inst. The subject is in 11 chapters, as follows: 'Equipment for unloading and transporting fish and fish products' (pp. 10-54); 'Fish washing machines' (pp. 55-76); 'Fish handling machines' (pp. 77-185); 'Portioning and container filling machines' (pp. 186-234); 'Can sealing machines' (pp. 235-96); 'Chopping, mixing and pressing machines' (pp. 297-328); 'Heat treatment installations' (pp. 329-445); 'Drying and smoking installations' (pp. 446-96); 'Fish oil and fish meal installations' (pp. 497-565); 'Continuous mechanized lines' (pp. 566-89); and 'Machines for labelling, packing, and other purposes' (pp. 590-638). Numerous diagrams and illustrations are included, but there is no subject index. SKK

950

Fish handling and processing. [A book]

Burgess, G. H. O.; Cutting, C. L.; Lovern, J. A. Waterman, J. J. (Editors)
xv + 390pp. (1965) [En] Edinburgh, Scotland: H.M. Stationery Office Price 40s. [Ministry of Technology, Torry Res. Sta., Aberdeen, Scotland]

This well-illustrated handbook for non-scientist employees of the British fish industry describes the major processes studied at the Torry Research Station. Subjects covered include: 'Handling fish at sea', (pp. 4-37); 'Handling and distribution of fish on land', (pp. 38-69); 'Smoking of fish', (pp. 70-101); 'Salt curing', (pp. 102-19); 'Drying', (pp. 120-38); 'Freezing and cold storage', (pp. 139-81); 'Thawing', (pp. 182-94); 'Canning', (pp. 195-222); 'Fish meal and oil', (pp. 223-56); 'Retailing', (pp. 257-72); 'Fish as living animals', (pp. 273-94); 'What fish are made of', (pp. 295-318); 'Fish and physics', (pp. 319-45); 'Fish spoilage', (pp. 346-56); 'Instruments', (pp. 357-76); 'How to find out more', (pp. 377-78). A detailed subject index is provided. JN

951

[Chilling techniques in the fish industry.]

Kholodil'naya tekhnika v rybnoi promyshlennosti. [A book]
Zaitsev, V. P.; Berezina, A. K.;
227pp. (1969) [Numerous ref. Ru] Moscow, USSR:

Izdatel'stvo Pishchevaya promyshlennost'. Price 0.55 rouble

Thermodynamic processes for artificial cold production are discussed together with the machinery and equipment used, their function and principle of operation. Problems of application of natural and artificial ice in the fish industry are dealt with and methods of artificial ice production are described. The application of cold in transportation of fish and fish products is also described. STI

952

Refrigeration at sea. [A book]

Munton, R.; Stott, J. R.
viii + 207 pp. (1967) [En] London: MacLaren & Sons Ltd. Price 70s

This book, dealing with refrigerated transport of foodstuffs at sea, combines the results of practical experience with fundamental scientific principles. The essential requirements in the field of mechanical engineering, insulation and biology which must be taken into account in the design and operation of ships, are outlined. Chapter 1 (pp. 1-36) considers the conditions required for the carriage of: chilled fruits and vegetables, animal products, dairy produce, quick frozen products and chilled beef. Additional chapters included are: 'Insulation' (pp. 37-70); 'Refrigerating machinery and refrigerants' (pp. 71-95); 'Methods of cooling the cargo chambers' (pp. 96-115); 'Heat leakage estimation' (pp. 116-30); 'Total load on the refrigeration plant' (pp. 131-42); 'Measurement of heat leakage' (pp. 143-46); 'Cleanliness, stowage, atmosphere control and carriage' (pp. 147-59); 'Instruments and automatic controls' (pp. 160-73); 'Air conditioning' (pp. 174-86). 3 appendices are included 'Refrigeration in fishing vessels', by J. J. Waterman, (pp. 187-201); 'Conversion factors'; and 'Temp. conversion table'. VJG

953

[Catalogue of machinery, equipment and apparatus produced by factories of the Ministry of Fisheries of the USSR.] Katalog mashin, oborudovaniya i priborov, vypuskaemykh predpriyatiyami Ministerstva rybnogo khozyaistva SSSR. [A book]

Kosova, O. N. (Editor)
264pp. (1969) [Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 1.60 Roubles

This illustrated catalogue lists technical information and 1967 prices of the following categories of fish-handling machinery, equipment and apparatus produced by factories of the USSR Ministry of Fisheries: washing machines; machines for preliminary treatment of fish and crabs and defrosting of fish; canning equipment; fish-salting machinery; heat exchangers and sterilizers; smokehouse equipment; sorting and packaging equipment; fish-pumping equipment; ancillary equipment; ice-making machines; transportation equipment; implements and stamping machines; ship's equipment (compressors, pumps, blocks, various mechanical implements); ind.

equipment (net handling and emptying machinery, winches, and other equipment); net-making machinery; electric stunning and fishing equipment. SKK

954

[Organization of intrafactory 'khozraschet' in refrigeration plants and fish-processing factories.] Organizatsiya vnutrizavodskogo khozrascheta na kholidil'nikakh i ryboobrabatyvayushchikh predpriyatiyakh. [A book] Izotova, K. S.; Lukoshkin, S. A. 72pp. (1969) [Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya: Promyshlennost'. Price 0.15 Rouble

This monograph, intended for specialist workers in refrigeration plants and fish-processing factories of the RSFSR state meat and fish trading organization 'Rosmyasorybtorg', deals with 'khozraschet', i.e. operation on a self-supporting basis, under the following chapter heads: 'Brief characteristics of organization of 'Rosmyasorybtorg' establishments' (pp. 5-7); 'Organization of intrafactory 'khozraschet' (pp. 8-17); 'Organization of intrafactory shop planning' (pp. 17-35); 'Accounting, book-keeping and analysis of results of business activities' (pp. 35-48); and 'Incentives' (pp. 48-52). Organizational details are presented in 10 appendices (pp. 53-71). SKK

955

[Applications of infrared radiation in fish processing] Ispol'zovanie infrakrasnykh izluchenii v tekhnologii ryby. [A book] Sakharova, N. N. 164pp. (1969) [Ru] Moscow: Pishchevaya Promyshlennost. Price 87 k.

This book describes the possible applications of infrared radiation for heat processing of fish. It is intended for specialists working in the fish industry and for university students. Main chapters are: infrared radiation sources, penetration and absorption of infrared rays by fish tissue; changes in the tissue; absorption coeff. of monochromatic radiation by the tissue, the depth of ray penetration and penetration of the integral flow of radiation into the tissue; heat processing and drying of fish by infrared radiation; basic principles for the choice of efficient types of radiation source and methods of processing fish by infrared radiation; practical application of infrared emitters for heat processing of canned fish, especially sprats, sardines, smoked fish in oil; design and layout of equipment for heat processing of fish by infrared radiation. STI

956

Freezing and irradiation of fish. [A book] Kreuzer, R. (Food and Agriculture Organization of the United Nations) (Editor) xviii + 528pp. (1969) [Numerous ref. En, fr, it] London, England: Fishing News (Books) Ltd. Price 230s

This book records 80 papers presented at the FAO Congress held in Madrid, Sept. 1967, on the

Freezing and Irradiation of Fish. There are 6 main parts: 'Freezing fish at sea': techniques and equipment, factors affecting quality, freezing media and superchilling, 17 papers; 'Freezing and processing of frozen fish': physical effects of freezing, specific problems and techniques, effect of polyphosphate treatment, freezing of tropical and thawing of frozen fish, 14 papers; 'Economics of producing and marketing frozen fish products', 14 papers; 'The quality of frozen fish products and its assessment', 10 papers. 'Storage, packing and distribution': including design and operation of cold stores, 7 papers; 'Preservation of fishery products by irradiation': quality aspects and present status and considerations concerning wholesomeness, economic aspects and production technology, 18 papers - many of these represented organized research work specially undertaken for the Congress. AB

957

[Microbiological studies of food products and smoked fish products.] Mikrobiologicheskie issledovaniya kulinarnykh i kopchenykh rybnykh produktov. [Book] Shkol'nikova, S. S. 84pp. (1972) [113 ref. Ru] Moscow, USSR, Izdatel'stvo 'Pishchevaya promyshlennost'. Price 0.29 rouble

The book summarizes knowledge on microbiological investigations of fish, food products and smoked products including auxiliary materials. Recommendations for growth media preparation are included in a supplement. The book includes the following chapters: factors affecting the viability of microorganisms; most frequent microorganisms in fish and fish products; microbiological investigation methods; microbiological investigation of raw materials; microbiological control of finished products; microbiological control of auxiliary materials; sanitation; treatment of glass and equipment used; and preparation of growth media. STI

958

Fish inspection and quality control. [A book] Kreuzer, R. (Editor) xvi + 290pp. (1971) [Numerous ref. En, fr, es] London, UK: Fishing News (Books) Ltd. Price £12.50 [Fishery Products and Marketing Branch, Fishery Ind. Div., FAO, Rome, Italy]

This book records papers presented at the FAO Congress held in Halifax, Nova Scotia, Canada. It includes the following papers: The importance of fish inspection in the rational utilization of fishery resources, by R. I. Jackson (pp. 2-6); The need for fish inspection and quality control programmes, by G. G. Anderson (pp. 6-8); Some fundamental problems in the quality assessment of fishery products, by C. H. Castell (pp. 9-13); The organization of a fish inspection system, by H. V. Dempsey (pp. 16-19); The development and adoption of regulatory standards for products and for processing plants, by P. F. Jensen (pp. 19-21, 1 ref.); The development of regulatory

standards for products and for processing plants, by L. M. Beacham (pp. 22-24); Regulatory views of quality assurance programmes, by L. R. Shelton (pp. 24-26); Principles of quality control of fish products, by O. C. Sundsvold (pp. 26-28, 1 ref.); Sampling requirements for verification, by F. L. Olson (pp. 28-31, 4 ref.); Theoretical and practical considerations in the development of grade standards for fishery products, by J. J. Ryan (pp. 31-34); Developing quality standards for fresh dressed Pacific halibut, by J. A. Dassow, R. W. Nelson & W. I. Tretsven (pp. 34-40, 13 ref.); Development of inspection and grading standards for canned fish products, by R. S. Bolton (pp. 40-46, 4 ref.); Fish inspection in Japan, by P. F. Jensen (pp. 47-53); Prepackaged fresh fish, by H. H. Huss (pp. 60-65, 36 ref.); Quality control aspects of prepackaged fresh and smoked fish, by C. K. Murray, D. M. Gibson, & J. M. Shewan (pp. 66-70, 8 ref. [Continued in following abstr.] AL

959

Fish inspection and quality control. [A book] Kreuzer, R. (Editor) xvi + 290pp. (1971) [Numerous ref. En, fr, es] [Continued from preceding abstr.] Quality assessment in Tilapia species, by J. G. Disney, J. D. Cameron, A. Hoffman, & N. R. Jones (pp. 71-72); An objective test for determining whether 'fresh' fish have been frozen and thawed, by E. Gould (pp. 72-75, 4 ref.); Speed of freezing and quality of frozen fish, by W. J. Dyer (pp. 75-81, 46 ref.); Specific problems in the quality assessment of freshwater fish, by E. G. Bligh (pp. 81-85, 36 ref.); Methods of inspection and quality control for packing canned tuna, by R. G. McCabe (pp. 86-91, 8 ref.); Quality control of ingredients used in tuna canning, by E. K. Bacon (pp. 92-96, 6 ref.); A method for predicting 'greening' of tuna before cooking, by C. Nagaoka, M. Yamagata & K. Horimoto (pp. 96-99, 9 ref.); Improvements in the determination of texture of canned salmon, by J. H. Mann (pp. 99-104, 11 ref.); Colour sorting of Pacific salmon, by P. J. Schmidt & R. M. Cuthbert (pp. 104-107, 3 ref.); Quality control of canned fish products in France, by F. Soudan (pp. 108-112, Fr, en, es); Salted and dried groundfish products, by J. P. Hennessey (pp. 114-116, 4 ref.); A quick method for detection of added nitrite in cured salmon roe, by K. Amano & N. Tsukuda (p. 117); Inspection of cured fish in India and suggested standards for quality control, by S. V. S. Rao & N. L. Lahiry (pp. 118-119); Inspection and quality assessment of Japanese comminuted fish products, by K. Amano (pp. 119-124, 1 ref.). [Continued in following abstr.] AL

960

Fish inspection and quality control. [A book] Kreuzer, R. (Editor) xvi + 290pp. (1971) [Numerous ref. En, fr, es] [Continued from preceding abstr.] Quality control and inspection of European comminuted products, by L. Herborg (pp. 124-128, 7 ref.); A

study of the quality assessment of fish protein concentrate, by E. K. Moustafa (pp. 130-131); Zone electrophoresis and its application to fishery product inspection, by R. J. Learson (pp. 132-133, 1 ref.); Product protection and quality control through combined industry effort, by I. I. Somers, C. W. Bohrer, J. M. Reed & R. P. Farrow (pp. 136-138); Improvement of the quality of fish products in retail stores, by P. G. Houle, J. M. Graham & R. A. Poirier (pp. 139-141); Importance of quality control in the fish industry, by R. M. Boshell (p. 142); An industry view on fish inspection, by H. D. Pyke (pp. 143-144); Some economic aspects of quality control, by E. B. Slack (pp. 144-148, 28 ref.); Fish quality in Ireland as part of an overall marketing programme, by P. J. Rock (pp. 148-150); Quality standards and the marketing mix, by J. C. O'Sullivan (pp. 151-154, 1 ref.); Consumer evaluation of fresh and frozen fish, by J. J. Connell & P. F. Howgate (pp. 155-159, 3 ref.); A systems approach to quality control and inspection in the fish industry, by G. C. Eddie (pp. 160-167); Food quality evaluation: a review of sensory methods, by E. Larmond (pp. 172-175, 29 ref.); Appraising smoked whitefish with sensory panels, by M. Vaisey, M. Slusar, D. Babienko & A. W. Lantz (pp. 175-180, 19 ref.). [Continued in following abstr.] AL

961

Fish inspection and quality control. [A book] Kreuzer, R. (Editor) xvi + 290pp. (1971) [Numerous ref. En, fr, es] [Continued from preceding abstr.] Comparison of sensory and objective methods for quality evaluation of fresh and frozen saltwater fish, by N. Antonacopoulos (pp. 180-182); The estimation of trimethylamine in fish muscle, by J. M. Shewan, D. M. Gibson & C. K. Murray (pp. 183-186, 23 ref.); Proposed modification of Dyer's method for trimethylamine determination in cod fish, by H. Tozawa, K. Enokihara & K. Amano (pp. 187-190, 11 ref.); Variation of biochemical quality indices by biological and technological factors, by D. F. Hiltz, W. J. Dyer, S. Nowlan & J. R. Dingle (pp. 191-195, 33 ref.); Hypoxanthine as an indicator of freshness in iced Cape hake before freezing and after thawing, by J. R. Burt & C. K. Simmonds (pp. 196-202, 27 ref.); A critical appraisal of tests for evaluating quality loss in frozen stored fish, by J. J. Connell & P. F. Howgate (pp. 202-206, 7 ref.); The TTC test for evaluating the freshness of shucked oysters, by T. Mochinaga (pp. 206-207, 1 ref.); Some recent results on the use of the Inteletron Fish Tester MK 5, by D. M. Gibson & J. M. Shewan (pp. 208-210, 7 ref.); Characteristics of white muscle fluorescence in pre-rigor fish, by S. V. Manohar (pp. 211-215, 14 ref.); Hygienic and safety aspects of quality control, by F. Thatcher (pp. 222-225, 2 ref.); Quality aspects of industrial water thawing and fillet processing, by W. A. MacCallum (pp. 225-233, 4 ref.). [Continued in following abstr.] AL

962

Fish inspection and quality control. [A book]
Kreuzer, R. (Editor)

xvi + 290pp. (1971) [Numerous ref. En, fr, es]

[Continued from preceding abstr.] Influence of bacteriological standards on the quality of inspected fisheries products, by N. Neufeld (pp. 234-240, 20 ref.); Fish plant water supplies, by W. J. Brownlee (pp. 241-243); Food poisoning in Japan caused by poisonous fish, by T. Kawabata (pp. 243-245, 9 ref.); Survival and growth of pathogenic bacteria in seafoods by J. Liston, J. R. Matches & J. Baross (pp. 246-249, 13 ref.); Seafoods and botulism, by J. T. Graikoski (pp. 249-255, 28 ref.); Ultrasonic inspection of parasitized whole fish, by M. Freese (pp. 256-262, 9 ref.); Infestation of fish in Brazil with *Tetrarhynchus fragilis* larvae, by C. A. M. Lima dos Santos & E. P. V. Zogbi (pp. 262-264, 8 ref.); Food safety programmes of the World Health Organization, by F. C. Lu (pp. 264-265, 6 ref.); The training of fishery inspectors, by J. Walls (pp. 270-274, 11 ref.); Training and evaluation of trainees for the organoleptic assessment of fishery products for quality control laboratories, by S. Varga (pp. 275-276, 6 ref.); Fish quality and the Fishery School at Grande-Riviere, Quebec, by L. J. Berube (pp. 277-279, Fr, en, es); International standards for fish and fishery products (Codex Alimentarius), by O. R. Braekkan (pp. 284-287); and Codes of practice for fish and fishery products, by R. Kreuzer (pp. 287-290). AL

963

[Mechanized and automatic fish frying ovens.]

Mekhanizirovannye ryboobzharnyye pechi i ikh avtomatizatsiya. [A book]

Shif, I. G.

116pp. (1969) [29 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'

The subject is covered under the chapter headings: 'Evaluating the level of efficiency of ovens', 'Design of ovens', 'Design of heating surfaces and methods of calculating heating characteristics of frying equipment', 'Design of equipment for moving the product in mechanized ovens and methods of effecting contact between product and fat', 'Coolers for fried products' and 'Schematic diagrams for automatic operation of frying ovens'. The book is designed primarily for production engineers and designers, and also for higher and technical school students. HBr

964

The pilchard. Biology and exploitation. [Book]

Culley, M.

ix + 241pp. ISBN 08 016523 0 (1971) [many ref. En] Oxford, UK, Pergamon Press Ltd. Price £8.00 [Dept. of Biol. Sci., Portsmouth Polytechnic, UK]

This book, which forms volume 48 of the International Series of Monographs in Pure and Applied Biology (Zoology Division), will be of interest to food and fisheries scientists and students of applied biology and zoology. It is divided into 5 sections, each section containing one or more

chapters. The sections are: Introduction (pp. 1-22); The pilchard industry of England (pp. 23-139); The sardine industry of California (pp. 141-178); The pilchard industry of South and South West Africa (pp. 179-217); and Statistical appendix (pp. 219-227). Individual chapters include: Processing techniques (pp. 80-85); Seasonal changes [in composition] (pp. 86-91); The chief outlets for the pilchard (pp. 92-97); Consumer demand (pp. 98-105); and General conclusions concerning the English pilchard industry (pp. 129-139). JA

965

The marketing of shellfish. [A book]

Nowak, W. S. W.

xvi + 263pp. (1970) [Numerous ref. En] London, UK: Fishing News (Books) Ltd. Price 90s. [City of Loidon Coll., Moorgate, London EC2, UK]

The purpose of this book is to document and explain the most important facets of marketing in the specific areas and countries discussed and to give an insight into the factors affecting supply and demand. British, European and N. American marketing systems are analysed and the whole field of shellfish marketing is covered from processing to methods of despatch. The book is divided into 4 parts. The 1st, Shellfish marketing in the UK as compared with N. W. Europe, contains the following chapters: Factors which influence demand (pp. 3-22); Factors affecting supply and market efficiency (pp. 23-53); Legal limitations controlling shellfish supply in Britain (pp. 54-85); and Quality control techniques in Britain compared with those abroad (pp. 86-109). Chapters in the 2nd part, Shellfish marketing in N. America, are: A study of the US industry (pp. 113-84); The Canadian shellfisheries - an export-centred industry (pp. 185-200); and Mexico's shellfisheries - an example of rapid development (pp. 201-15). Part 3, Future trends, contains 1 chapter: Trends in the shellfish industry likely to effect marketing (pp. 219-33). Part 4 consists of a bibliography and index. JA

966

Seaweeds and their uses. [A book]

Chapman, V. J.

2nd edition xiii + 304pp. (1970) [Numerous ref. En] London, UK: Methuen & Co. Ltd. £4 in UK only [Univ., Auckland, New Zealand]

This revised 2nd edition provides a description of the commercial uses of seaweeds under the following chapter headings: Occurrence and distribution of seaweeds (pp. 1-23); The early kelp industry and iodine production (pp. 24-47); The American Pacific coast potash industry, 1910-1930 (pp. 48-62); Seaweed as animal fodder and manure (pp. 63-85); Algae as food for man (pp. 86-118); Laver or 'nori' and carrageen or Irish Moss (pp. 119-150) Agar-agar (pp. 151-193); Algin and alginates (pp. 194-217); Minor uses of algae and their products (pp. 218-231); and Looking for seaweeds. The world's supplies (pp. 232-261). A detailed selected

bibliography, author and person index, plant index and subject index are provided. JN

MEAT & POULTRY

967

Growth and development of mammals. [A book] Lodge, G. A.; Lammings, G. E. (Editors) xi + 527pp. (1968) [Numerous ref. En] London: Butterworths. Price 160s. [Univ. of Nottingham, School of Agric., Sutton Bonnington, Loughborough, Leicestershire, England]

This book consists of papers read at the 14th Easter School in Agricultural Science held at Nottingham Univ., England, in 1967. The papers are grouped together into 8 sections: "Tissue Growth", "Hormonal Influences", "Prenatal Development", "Postnatal Development", "Genetic Influences", "Nutritional Influences", "Carcass Quality and Assessment" and "Practical implications of factors affecting Growth". Chapters of food science and technology interest include "Body development and some problems of its evaluation", by V. R. Fowler (pp. 195-211); "The effect of growth rate of muscle in cattle on conformation as influenced by muscle-weight distribution", by R. M. Butterfield & E. R. Johnson (pp. 212-23); "Influence of growth rate on reproduction and lactation in dairy cattle", by S. Amir, J. Kali and R. Volcani (pp. 234-56); "Genetic variation in growth and development of cattle", by S. C. S. Taylor (pp. 267-90); "Genetic variation of body weight in sheep", by J. C. Bowman (pp. 291-308); "Genetic aspects of growth and development in the pig", by M. Bickard (pp. 309-25); "Beef carcass evaluation: fat, lean and bone", by M. A. Carröll & D. Conniffe (pp. 389-99); "Genetic studies of growth and carcass composition in sheep", by V. M. Timon (pp. 400-15); "Problems in the evaluation of pig carcasses", by Z. Osinska (pp. 416-24); "Genetic and environmental influences on growth in beef cattle", by R. T. Berg (pp. 429-50); "Genetic and environmental influences on growth and development in pigs", by I. A. M. Lucas (pp. 466-97). JRG

968

Principles of animal environment. [A book] Esmay, M. L. vii + 325pp. (1969) [Numerous ref. En] Westport, Connecticut: AVI Publishing Co. Inc. Price \$15.00 (US) \$16.00 (Foreign) [St. Univ., East Lansing, Michigan, USA]

This book bridges the technology gap between the fields of animal science and environmental engineering. The subject matter is divided into 3 broad classifications: the response of animals to environmental factors; the dissipation of heat from animal systems; and the heat and moisture balance and environmental control of animal housing systems. Chapters are: 'Animals and environment' (pp. 1-15, 10 ref.); 'Homeostasis of animals' (pp. 17-31, 8 ref.); 'Homeothermy of

animals' (pp. 33-52, 17 ref.); 'Psychrometrics' (pp. 53-69, 5 ref.); 'Heat and mass transfer as affected by ambient temperature' (pp. 71-89, 22 ref.); 'Humidity and its effect on animals' (pp. 91-104, 24 ref.); 'Convective heat loss from animals' (pp. 105-19, 11 ref.); 'Radiant heat loss from animals' (pp. 121-36, 9 ref.); 'Radiation protection in the hot climate' (pp. 137-66, 15 ref.); 'Poultry and their environment' (pp. 167-96, 35 ref.); 'Heat and vapour transmission in buildings' (pp. 197-216, 4 ref.); 'Heat and water vapour production in livestock and poultry structures' (pp. 217-34, 18 ref.); 'Air exchange in livestock and poultry buildings' (pp. 235-56, 15 ref.); 'Environmental control and the climate' (pp. 257-72, 16 ref.); 'Air flow patterns' (pp. 273-86, 8 ref.). JA

969

[Farm production of meat products.] Domowe wyroby miesne. [A book] Klossowski, T. 135pp. (1968) [Pl] Warsaw, Wydawnictwo Przemyslu Lekkiego i Spozywczego. Price 14 zl.

The book is mainly intended for farm slaughter, and deals with the structure and evaluation of nutrients in the meat. It gives the principles of planned fattening and slaughter of farm animals for home consumption; the value of individual fodders and feeding rations in the fattening period; and practical instruction for fattening pigs for home consumption. The book contains regulations valid in Poland for slaughter of farm animals for home consumption. A description is given of the technology of slaughter, and cutting, including sanitation, infectious diseases, tools and implements used. Information is given on processing of viscera and by-products, storage and preservation of meat, home production of smoked meat and other meat products. Individual chapters cover slaughter of pigs, sheep, calves, and rabbits. STI

970

[Breeding for lean pork.] Plemenarska prace k ziskani liboveho veproveh masu. [A book] Cvachovec, B. 48pp. [56 ref. Cs, ru, en] Prague, Czechoslovakia: UVTI. Price 8 Kcs

971

Performance recording in sheep. [A book] Owen, J. B. Technical Communications. Commonwealth Bureau of Animal Breeding and Genetics 20: xi + 132pp. SBN 85 198 020 1 (1971) [Numerous ref. En] Slough, UK: Commonwealth Agricultural Bureaux. Price £2.00 [School of Agric., Univ., Cambridge, UK]

This book contains chapters on: Development of performance recording in farm livestock; Objectives in sheep improvement; The use of records in sheep improvement; and World review of performance recording in sheep. Aspects of milk

production and yield, carcass quality and wool production are briefly discussed. BEPC

972

New Zealand beef production, processing and marketing. [A book]

Campbell, A. G. (New Zealand. Institute of Agricultural Science) (Editor)
xiv+638pp. (1970) [Numerous ref. En]
Wellington, New Zealand: Inst. of Agric. Sci.
[Ruakura Agric. Res. Centre, Hamilton, New Zealand]

The aim of this book is to review all aspects of the New Zealand beef industry, to identify, describe and rank priorities for future work, and to disseminate the results and recommendations. The book is divided into 6 major sections each containing several papers. Sections are: Industry statistics and economics (pp. 9-74); Breeding and reproduction (pp. 75-210); Nutrition and management (pp. 211-285); Disease prevention and control (pp. 287-368); Marketing and processing (pp. 369-454); and Education and extension (pp. 455-494). Individual papers include: Statistics of beef cattle, beef production and consumption, by J. V. White & N. Patchett (pp. 22-28); Beef statistics for the freezing industry, by M. B. Willyams (pp. 37-45); Selection objectives and methods of measuring merit in beef cattle, by A. L. Rae & R. A. Barton (pp. 101-112, 38 ref.); The yield and composition of milk of suckled beef cows, and their relation to calf liveweight gains, by R. A. Barton (pp. 130-140, 25 ref.); Growth and body composition studies in beef cattle, by A. H. Kirton & K. T. Jagusch (pp. 250-260, 61 ref.); Health and hygiene requirements for beef meat intended for export and local consumption, by J. D. McNab (pp. 360-368); Export markets for beef, by F. R. A. Hellaby (pp. 381-385, 2 ref.); Demand prospects for beef, by B. P. Philpott (pp. 386-394, 4 ref.); Beef requirements of the New Zealand retail trade, by D. J. Fyfe (pp. 401-407); Muscle properties and meat quality, by B. B. Marsh (pp. 408-415, 18 ref.); [Continued in following abstr.] JA

973

[Reception and keeping cattle at meat combines. A handbook.] Spravochnik po priemke i soderzhaniyu skota na myasokombinatekh. [A book]

Mampel', I. E.; Raiskii, N. Ya.
223pp. (1971) [14 ref. Ru] Moscow, USSR:
Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.72 rouble

The book contains the following chapters: Main breeds of cattle, pigs, sheep, and goats; Livestock feeding before slaughter; Veterinary control; Transportation of livestock to meat combines; Treatment of livestock before slaughter; Meat characteristics and grading; Slaughterhouse yields; and Feeding-stuffs composition and feeding value. STI

974

Improvement of livestock production in warm climates. [Book]

McDowell, R. E.
x+711pp. ISBN 0 7167 0825 6 (1972) [many ref. En] San Francisco, USA, W. H. Freeman and Co. Price \$19.50 [Cornell Univ., Ithaca, New York, USA]

The major principles of livestock production are dealt with in turn, and an attempt is made to illustrate how effective improvement programmes can be developed from limited research findings in the warm climate regions, defined as lying between 30° N and 30° S, and from well established principles of animal production. The emphasis is on sheep, goats, cattle and buffaloes, in which production is still based largely on traditional methods. Chapters written by other authors include: Sheep production in the semi-arid areas of Africa and southern Asia, by R. G. Jones (pp. 541-562, 20 ref.); The water buffalo and its future, by H. C. Pant & A. Roy (pp. 563-599, 71 ref.); Milk handling and processing in the warm climates, by E. J. Siegenthaler (pp. 603-628, 15 ref.); and Meat handling in the warm climates, by J. R. Stouffer (pp. 629-648, 11 ref.). MJB

975

[Evaluation of meat production of livestock.]

Hodnotenie masovej užitkovosti hospodarskych zvierat. [Book]

Kresan, J.; Pelech, O.; Sidor, V.
198pp. (1971) [many ref. Sk] Bratislava, Czechoslovakia, Priroda. Price 11 Kcs

This book contains the following chapters: Trends in the production and consumption of slaughterhouse products (pp. 7-17); The growth and development of livestock (pp. 17-45); Evaluation of meat yields of livestock (pp. 46-140); Evaluation of fattening capacity and slaughter value of livestock (pp. 141-159); and Grading and marketing of livestock (pp. 159-172). The text is accompanied by photographs and tables. STI

976

Beef production. [Book]

Dodsworth, T. L.
90pp. SBN 08 017016 1 (hard cover) (1972) [5 ref. En] Oxford, UK, Pergamon Press Ltd. Price £2.00 [Div. of Animal Husbandry, North of Scotland Coll. of Agric., UK]

Information on beef production is arranged under the following chapter headings: The present position and possible developments (pp. 1-4); Types of beef and the beef carcass (pp. 5-13); Factors affecting technical efficiency and profitability (pp. 14-20); The importance of the type of animal and of recording in beef production (pp. 21-33); Calf rearing (pp. 34-48); Suckler herds (pp. 49-57); The semi-intensive or eighteen-month system (pp. 58-66); Intensive or twelve-month systems (pp. 67-78); and Conventional fattening in winter and in summer (pp. 79-86). VJG

977

Pig production. Proceedings of the Eighteenth Easter School in Agricultural Science, University of Nottingham, 1971. [Book]

Gole, D. J. A. (Editor)

457pp. ISBN 0 408 70337 7 (1972) [many ref. En] London, UK, Butterworths Price £8.00 [Univ. of Nottingham School of Agric., Sutton Bonington, Loughborough, Leics., UK]

The 23 papers presented at the conference are divided between 4 sections: Genetics (pp. 1-67); Environment (pp. 69-139); The growing pig (pp. 141-291); and The breeding pig (pp. 293-434). Papers which may be of interest to food scientists are: Factors influencing genetic gain, by H. T. Fredeen (pp. 3-19, 49 ref.); The interaction of genotype and environment in pig production, by J. W. B. King (pp. 21-36, 46 ref.); Crossbreeding and genetic improvement, by M. Bichard & W. C. Smith (pp. 37-52, 37 ref.); and Meat quality in the pig, by R. A. Lawrie (pp. 163-182, 90 ref.). JA

978

Livestock and meat marketing.

McCoy, J. H.

ix+465pp. ISBN 0 87055 120 5 (1972) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$21.00 (US), \$22.00 (Foreign) [Kansas St. Univ., Manhattan, USA]

This book is designed to be the chief reference text for course on livestock and meat marketing in the USA, attended by undergraduates in agricultural economics and animal science. The subject is covered under the chapter headings: Introduction (pp. 1-13, 15 ref.); Historical perspective (pp. 14-22, 8 ref.); Economic theory and principles (pp. 23-42, 7 ref.); Livestock production and supply (pp. 43-88, 26 ref.); Meat consumption and related demand (pp. 89-115, 15 ref.); Types of livestock markets and marketing (pp. 116-155, 33 ref.); Meat packing and processing (pp. 156-187, 28 ref.); Meat marketing - wholesale (pp. 188-210, 16 ref.); Meat marketing - retail (pp. 211-233, 21 ref.); Futures markets (pp. 234-270, 24 ref.); Grades and grading (pp. 271-316, 40 ref.); Market intelligence (pp. 317-335, 19 ref.); Regulatory and inspection measures (pp. 336-352, 21 ref.); International trade in livestock, meat and wool (pp. 353-392, 26 ref.); Marketing costs (pp. 393-432, 44 ref.); Meat substitutes and synthetics (pp. 433-441, 8 ref.); and Shape of the future (pp. 442-455, 22 ref.). A 10-pp. subject index is included. JN

979

[Application of computers in meat industry management.] *Primenie sredstv vychislitel noi tekhniki v upravlenii proizvodstvom na predpriyatiyakh myasnoi promyshlennosti.* [A book]

Mikhailovskii, B.; Mikshis, G.; Belyakov, V. I.; Uskov, V.

35pp. (1970) [18 ref. Ru] Moscow, USSR:

Ministerstvo Myasnoi i Molochnoi Promyshlennosti
Price 0.18 rouble

Examples of the application of different computers in the meat industry are given. The chapters of the book deal with: economic reform and enterprise management; modern management techniques; and modern technical means applied in planning and management. STI

980

[Planning of production in the meat industry under the new economic conditions.] *Planirovanie proizvodstva v myasnoi promyshlennosti v novykh*

usloviyakh khozyaistvovaniya. [A book]

Shnitser, S. S.

45pp. (1969) [Ru] Moscow: 'Pishchevaya Promyshlennost'. Price 14 k.

The book describes new methods of production planning in the meat industry, and is intended for specialists working in meat processing plants. Main chapters of the book cover general principles of production planning and development of individual aspects under the new economic conditions. STI

981

The science of meat and meat products. [Book]

Price, J. F.; Schweigert, B. S. (Editors)
Second edition. x+660pp. ISBN 07167 0820 5 (1971) [many ref. En] San Francisco, USA, W. H. Freeman & Co. [St. Univ., Michigan, USA]

This textbook follows the same general format as the first edition published in 1960 and brings the information up to date to the end of 1969. The book is divided into 2 parts: Basic science of meat; and Science of meat processing. Chapters included are: Introduction, by J. F. Price & B. S. Schweigert (pp. 1-10, 30 ref.); Microscopic structure of animal tissue, by R. G. Cassens (pp. 11-17, many ref.); Chemistry of animal tissue, by C. E. Bodwell, P. E. McClain, L. R. Dugan, Jr., R. A. Merkel & J. Wismer-Pederson (pp. 78-207, many ref.); Muscle function and post-mortem changes, by A. M. Pearson (pp. 208-229, 54 ref.); Microbiology of meat, by R. V. Lechowich (pp. 230-286, 39 ref.); Nutritional content and value of meat and meat products, by E. E. Rice (pp. 287-327, 23 ref.); Palatability characteristics of meat, by L. J. Bratzler & I. Hornstein (pp. 328-363, 46 ref.); Quality characteristics of muscle as a food, by E. J. Briskey & R. G. Kauffman (pp. 367-401, 135 ref.); Meat preservation, by W. M. Urbain (pp. 402-451, 86 ref.); Cured meats, by J. Bard & W. E. Townsend (pp. 452-483, 58 ref.); Sausage products, by V. J. Kramison (pp. 484-512, 19 ref.); Packaging, by J. M. Ramstrom (pp. 513-527, 14 ref.); By-products, by L. R. Dugan, O. H. M. Wilder, J. Naghski & J. B. Lesh (pp. 538-609, 37 ref.); and Quality control and sanitation, by J. F. Price (pp. 610-649, 95 ref.). A 10-pp. subject index is appended. JN

982

Meat technology. [A book]

Gerrard, F.

4th edition xviii + 358pp. ISBN 0 249 44067 9 (1971) [En] London, UK: Leonard Hill Price £4.75

Practical information relating to meat animals and their preparation as meat is given to meet the needs of students, butchers and others requiring a general background to meat trade practice. The subject is covered under the following chapter heading: Cattle and beef (pp. 1-5); Growth (pp. 16-28); Some British breeds of cattle (pp. 29-59); Slaughter (pp. 60-80); Dressing percentages (pp. 81-89); Carcass quality (pp. 90-121); Sheep and mutton (pp. 122-142); Slaughter (pp. 143-151); Carcass quality (pp. 152-168); Pigs and pork (pp. 169-176); Some British breeds of pigs (pp. 177-194); Growth and quality points (pp. 195-201); Slaughter (pp. 202-214); Carcass quality (pp. 215-222); The bacon pig (pp. 223-232); Preservation of meat (pp. 233-248); Meat cutting (pp. 249-313); Pre-packed meats (pp. 314-321); Meat as a food (pp. 322-333); and World distribution of food animals (pp. 334-345). The appendix deals in part with education in meat technology. There is a 5pp. subject index. JN

983

The meat handbook. [A book]

Levie, A.

3rd edition ix + 332pp. ISBN 0 87055 089 6 (1970) [Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co., Inc. Price \$ 12.00 (US) \$ 13.00 (Foreign) [Elgee Meats, Los Angeles, California, USA]

This revised 3rd edition provides practical information for workers in the food service industry, meat retailing and locker plants. New information has been included dealing with pre-portion cut steaks, palatability factors and food testing. The following chapters are included: Livestock (pp. 1-9, 12 ref.); Slaughter and inspection (pp. 10-20, 20 ref.); Grading (pp. 21-41, 20 ref.); Structure (pp. 42-47, 13 ref.); Refrigeration of meat (pp. 48-57, 19 ref.); Distribution (pp. 58-63, 5 ref.); Buying plan (pp. 64-81, 15 ref.); Specifications (pp. 82-101, 10 ref.); Arithmetic of meat merchandizing (pp. 102-23, 6 ref.); Commercial bribery (pp. 124-40, 4 ref.); Setting up shop (pp. 141-60, 13 ref.); Beef hindquarter (pp. 161-205, 7 ref.); Beef forequarter (pp. 206-30, 8 ref.); Veal (pp. 231-51, 6 ref.); Lamb (pp. 252-73, 9 ref.); Fresh pork (pp. 275-92, 8 ref.); Processed, smoked, and variety meats (pp. 293-301, 8 ref.); and Cooking and palatability (pp. 302-26, 34 ref.). VJG

984

Handbook of food products. Meat and meat products. [A book]

Danilov, M. M.

v + 173pp. (1969) [En] Jerusalem: Israel Program for

Scientific Translations

This is a translation by L. Markin of a Russian textbook for economics students (published by Izdatel'stvo 'Ekonomika', Moscow 1964). The first chapter (pp. 4-134) deals with: main animal breeds (including cattle, pigs, sheep and goats); commercial quality of slaughter animals; types of meat-processing plants; primary processing of slaughter animals; inspection of meat and meat products outside meat-processing plants; meat of sick animals; morphologic structure of meat; chemical composition of meat; post-slaughter changes in meat; meat classification; meat marking; commercial dressing of carcasses; types of meat products; methods of storing meat and its by-products; determination of meat quality; packaging together with twining diagrams and transporting meat and by-products. The 2nd chapter (pp. 135-51) similarly covers domestic poultry and game. The 3rd chapter (pp. 152-64) deals with eggs. JN

985

[Meat and meat products.] Fleisch und Fleischwaren. [A book]

Grau, R.

2nd edition 312pp. (1969) [Numerous ref. De] Berlin, W. Germany: Verlag Paul Parey. Price DM 44

This is the 7th title in the series 'Fundamentals of and progress in food analysis' [Grundlagen und Fortschritte der Lebensmitteluntersuchung], under the general editorship of J. Schormüller and H. Melchior, in which 11 titles covering a wide range of foods have already appeared. This book (a 2nd, expanded edition), entitled 'Meat and meat products', is well produced, and covers the topic under the following chapter headings: 'General' (pp. 11-29), which includes the legal definition of meat, data on W. German per caput meat consumption during 1950-65, a schematic diagram with names, for the W. German method of carcass cuts, and the W. German carcass quality evaluation scheme; 'Chemical composition of meat' (pp. 30-88), covering muscles, fatty tissue, entrails, blood, and bones etc.; 'Biochemistry of meat and chemistry of processing methods' (pp. 89-210), which covers post-mortem processes, cooling/freezing/deep-freezing, irradiation and brining, drying, smoking, manufacture of sausages and pre-cured meats, processing of fatty tissue, and packaging; and 'Analysis of meat and meat products' (pp. 211-91), which describes all the analytical methods commonly used in the German meat industry. A 14-pp. bibliography and 7-pp. subject index are included. HBR

986

[Meat and fish products, Third enlarged and revised edition.] Myasnye i rybnye tovary. Izd. 3. dopolnennoe i pere-rabotannoe. [A book]

Almazov, A. M.; Gordeev, L. M.

246pp. (1968) [Ru] Moscow: Ekonomika Price 45 k.

This revised edition, intended for employees in meat and fish industries, deals with meat and meat products (chemical composition, nutritive value,

slaughter, characteristics of fresh, cooled and frozen meat, packaging, transport, storage, secondary slaughter house products, animal fats, packaging and storage of cooking fats); poultry (composition and nutritive value); fish and fish products. STI

987

[**Biochemistry of meat.**] Biokhimiya myasa. [A book] Krylova, N. N.; Lyaskovskaya, Yu. N. 350pp. (1968) [Ru] Moscow: Pishchevaya promyshlennost' Price 92 k.

Metabolism as the fundamental feature of life is discussed together with the chem. of the most important substances forming animal organisms: proteins; carbohydrates; lipids; mineral components; enzymes; and vitamins. Food and its metabolism in the digestive system is discussed, together with the fundamental aspects of carbohydrate, lipid and protein metabolism; the chemistry of blood, spinal cord tissue, ligaments, bone, fat tissue, nerves, muscles, glands, skin and other tissues. Practical expt. are also mentioned including: determination of pH, the N content of meat and the other components of live matter, the preparation of protein solutions for various biochemical expt. with meat, and finally the reaction of light on protein and other reactions. STI

988

[**Physical, chemical and bacteriological control in the meat industry.**] Fiziko-khimicheskii i bakteriologicheskii kontrol' v myasnoi promyshlennosti. [A book]

Kogan, M. B.; Pozhariskaya, L. S.; Ryndina, B. P.; Freidlin, E. M. 462pp. (1971) [99 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.48 rouble

The book is divided into 4 parts containing the following chapters: Organization of laboratory work; Physical and chemical investigation methods; Microbiological methods; Investigation of meat; Investigation of sausages and smoked meat products; Convenience foods; Study of materials used in sausage production and convenience foods manufacture; Canned foods manufacture; Investigation of fats; Blood and bone glue products; Endocrinological raw material and products thereof; and Means of disinfection. STI

989

[**Colloid chemistry of meat. The water-binding capacity of muscle protein in theory and practice.**]

Kolloidchemie des Fleisches. Das Wasserbindungsvermögen des Muskelweisses in Theorie und Praxis. [A book] Hamm, R.

275pp. ISBN 3 489 695143 (1972) [1252 ref. De] Berlin, Germany: Paul Parey Price DM 78

This well-produced book contains the following chapters: Introduction, The water-binding capacity of meat as a colloidal chemistry phenomenon (pp. 13-14); The structure and composition of muscle (pp. 14-25); Basic concepts on the water-binding capacity of meat (pp. 25-43); Determination of the water-binding capacity of meat (pp. 43-56); Intermolecular interaction and its role in the water-binding capacity of muscle protein (pp. 56-91); Changes in the water-binding capacity after slaughter (pp. 91-120); Influence of various factors affecting the living animal on the water-binding capacity of the meat (pp. 120-137); Factors affecting the water-binding capacity of hanging meat (post-rigor muscle) (pp. 137-143); Effect of water-binding capacity on taste, tenderness and colour of meat (pp. 143-148); Methods of storage, freshness retention and preservation and the effect on the water-binding capacity of meat (pp. 148-184); Effect of processing on the water-binding capacity of meat (pp. 184-208); Water-binding capacity and flow characterization (pp. 208-213); Effect of tenderizing enzymes (pp. 213-215); and Importance of meat water-binding capacity for specific meat products (pp. 215-222). The 1252 references are in a separate chapter (pp. 224-266), and a 10-pp. subject index is included. HBr

990

[**Water binding capacity of meat.**] Vaznost masa. [A book]

Brendl, J. 172pp. (1970) [170 ref. Cs] Prague, Czechoslovakia: CAZ-VUPP-STI. Price 40 kcs

This specialist book deals with water binding capacity, a most important property of meat in connection with its further processing, which affects yield and sensory qualities of meat and meat products. It is intended for workers in meat processing industries, in convenience food production, in freezing industries and in health services. The main chapters deal with: water content in meat and its relation to binding capacity; materials used in technological processes affecting binding capacity; binding capacity of frozen meat; and meat dehydration and reconstitution. STI

991

[**Meat yield of cattle and beef quality.**] Myasnaya produktivnost' krupnogo rogatogo skota i kachestvo govyadiny. [A book]

Gaiko, A. A. 207pp. (1971) [Ru] Minsk, USSR: Izdatel'stvo Urozhai Price 0.41 rouble

This book, intended for Belorussian farm managers, animal husbandry specialists and scientific personnel, consists of the following main chapters: Specification in cattle husbandry and beef production in the Belorussian SSR (pp. 5-12); Meat production of young stock of cattle breeds approved in Belorussia (pp. 12-38); Increase in meat productivity of cattle by intensive rearing of

young stock (pp. 38-69); Intensive rearing for beef of uncastrated and castrated bull calves (pp. 69-104); Commercial crossing of dairy cattle with sires of specialized meat breeds as means of increasing meat productivity (pp. 104-187); and Meat and milk productivity of Hereford $\times$ Russian Black Pied and Aberdeen-Angus $\times$ Russian Black Pied 1st generation cross cows (pp. 187-205). SKK

992

[Slaughtering of cattle and the processing of carcasses.] Uboi skota i razdelka tush. [A book] Gritsai, N. P.; Gritsai, E. V. 206pp. (1968) [19 ref. Ru] Moscow: Pishchevaya Promyshlennost. Price 23 k.

This book is intended for technical personnel working in the meat industry. The first part deals with individual types and breeds of cattle. It describes the system of receiving cattle for slaughter and their stabling and preparation for slaughter. Technological equipment and transport lines used in the cutting up department are described. The 2nd part deals with processing of cattle, calves, sheep, pigs and goats; stunning and subsequent bleeding, stripping, shaving and

steaming; evaluation and classification of all other usable by-products; selecting and preparing glands and other parts for pharmaceutical purposes. In conclusion the book deals with the nutritive value of meat; the veterinary and sanitary checking of meat plants; general rules for safety at work; organization and economy in the meat plant; control of the plant; planning, organization of work, technique of standardization; wages and profitability of production. STI

993

[Raw-materials and auxiliary materials for meat processing.] Surowce i materialy pomocnicze dla przetworstwa miesa. [A book] Klossowski, T.

282pp. (1968) [Pl] Warsaw: PWSZ Price 12 zl.

The book describes the characteristics of the basic raw materials and secondary materials used during meat processing. Packaging materials (metal, timber, paper, glass, plastics) are given special attention. Fuel, energy and water economy are also discussed. Non-consumable slaughterhouse products are included. STI

994

[Equipment for skinning and processing hides in meat factories.] Oborudovanie dlya semki i obrabotki shkur na myaso-kombinatakh. [A book] Peleev, A. I.; Saltykov, A. N. 161pp. (1968) [Ru] Moscow: Pishchevaya promyshlennost' Price 35 k.

The basic conditions for skinning and treating hides are discussed, as well as the metals, raw materials and alloys used in fabricating and installing equipment required. The methods of

skinning and processing hides, appropriate equipment, planning lines and mechanization of the processes are also mentioned. STI

995

The ripening of meat: theory and practice of the process. Volumes 1 and 2. [A book]

Solov'ev, V. I.

371 pp. (1968) [Numerous ref. En] Boston Spa, Yorkshire, England: National Lending Library for Science and Technology. Price 40s.

This is a translation in 2 volumes by B. Haigh, of the Russian book 'Sozrevanie myasa:

teoriya i praktika protsessa' published in 1966 by Pishchevaya promyshlennost, Izdat. Moscow. It contains chapters on: 'The protein composition of meat and the individual properties of muscle tissue proteins' (pp. 5-12); 'Factors influencing the tenderness of meat' (pp. 13-26); 'The chemical nature of the substances responsible for the flavour and aroma of meat' (pp. 27-34); 'The microscopic structure of meat and its structural

changes during rigor mortis and ripening' (pp. 35-44); 'Rigor mortis of muscles' (pp. 45-76); 'The biochemical basis of the ripening of meat' (pp. 77-162); 'Rapid methods of ripening meat' (pp. 163-175); 'Improving the consistency of meat by means of proteolytic enzymes' (pp. 176-238); 'Methods of investigation' (pp. 239-302). JN

996

[Storage and sale of chilled meat.] Khranenie i realizatsiya oklazhdennogo myasa. [A book]

Gabriel'yants, M. A.; Malyutina, L. M.

95pp. (1971) [46 ref. Ru] Moscow, USSR: Izdatel'stvo Ekonomika. Price 0.24 rouble

This monograph deals with trade characteristics of chilled meat, its nutritive value and advantages over frozen meat. It describes conditions and periods of storage in cold stores and in retail trade. Attention is given to preservation of quality and reduction of losses under retail conditions as well as to features of carcass jointing and of cold storage of joints. SKK

997

[Microbiology of meat in cold stores.]

Mikrobiologiya myasa pri kholodil'nom khranении. [Book]

Noskova, G. L.

95pp. (1972) [70 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya promyshlennost'. Price 0.33 rouble

Sources of microbiological contamination of meat are discussed, with special reference to psychrophilic microorganisms. Factors influencing bacteriological contamination during storage are dealt with as well as bacteriological contamination of meat during thawing. A special chapter deals with microbiological contamination of frozen meat.

The main chapters of the book are entitled:
Characteristics of microflora in meat;
Microorganisms in chilled meat; Microorganisms in
frozen meat; Thawing of meat; Microbiological
control of meat. STI

998

[Veterinary and sanitary control and technological
processing of animal products.] Veterinarno-
sanitarnaya ekspertiza itekhnologiya pererabotki
produktov zhivotnovodstva. [A book]

Zagaevskii, I. S.; Zhernovskii, F. A.
2nd revised edition 247pp. (1970) [Ru] Moscow,
USSR: Izdatel'stvo 'Kolos' Price 0.62 rouble

This textbook, intended primarily for use in
veterinary and sanitary departments of
agricultural technical colleges, contains the
following chapters: Factors influencing meat
production of animals (pp. 5-14); Transport of
animals and products with short shelf-life (15-
25); Slaughterhouse and meat processing plants (26-
41); Preparing animals and poultry for slaughter
(42-45); Technology of primary processing of
animals and poultry (46-56); Meat (covers
morphology, chemistry, nutritive value, ripening,
decay, classification) (57-77); Post mortem
veterinary and sanitary examination of organs and
carcasses (78-89); Veterinary and sanitary control
and evaluation of products from sick animals (90-
126); Food poisoning and toxins (salmonellae,
botulism, staphylococci, streptococci, *Escherichia*
coli) (127-42); Technology and hygiene of
preservation of meat and meat products (low- and
high-temp. preservation, sausages, salting,
smoking) (143-62); Processing and veterinary and
sanitary control of slaughter products (fats,
offal, blood) (163-75); Processing and veterinary
and sanitary control of raw materials of animal
origin (skins, hides, wool, hair) (176-87); Milk,
milking conditions and sanitary evaluation (188-
203); Manufacture of sour milk products (204-07);
Fundamentals of butter- and cheesemaking (208-15);
Veterinary and sanitary control of retail fish
(216-26); Sanitary evaluation of retail vegetable
products and honey (227-36); and Veterinary and
sanitary control of retail meat and milk (237-45).
HBr

999

[Meat hygiene legislation.]

Fleischhygienerecht. [A book]

Dutschke, G.

xii + 492pp. (1966) De] Berlin and Hamburg: Verlag
Paul Parey

This comprehensive work in handy loose-leaf form
covers W. German legislation on meat
hygiene, up to the Amendment of May 24th, 1968,
and including legislation pertaining to the Common
Market. The pertinent laws and ordinances are
given individually. The work, designed primarily
for the use of meat inspectors, offers a good
guide to the legal situation for all involved in
the meat trade in West Germany. HBr

1000

[Modern methods of chemical analysis of meat and
meat products.] Moderne Methoden bei der
chemischen Analytik von Fleisch und Fleischwaren.
[Book]

Günther, H. O.

131pp. ISBN 3 8785 4 005 1 (1971) [38 ref. De]
Alzey, Federal Republic of Germany, Verlag der
Rhein Hessischen Druckwerkstätte E. Dietl & Co.
Price DM 32.50

This book, No. 6 in the Meat Research and
Practice (Fleischforschung und Praxis) series,
describes analytical methods tested over a period of
years by the author, and covers the following
individual methods: paper chromatography, column
chromatography, gel filtration, TLC, gas
chromatography, electrophoresis,
immunoelectrophoresis (including gel diffusion),
dye methods, enzymic methods, IR spectroscopy,
and various combined techniques. An 8-pp. subject
index is included. HBr

1001

Guide to meat inspection in the tropics. [A book]
Mitchell, J. R. (United Kingdom, Commonwealth
Bureau of Animal Health)

Technical Communication No. 1, vii + 78pp. (1970)
[39 ref. En] Farnham Royal, Bucks, England:
Commonwealth Agricultural Bureaux. Price 10s.

This manual aims to provide readily available
guidance and to be a source for quick reference
for personnel, engaged on meat inspection in the
tropics, who already possess a basic knowledge of
bacteriology, parasitology, pathology and anatomy.
The information is arranged under the following
chapter headings: 'Food animals' (pp. 2-5);
'Transport of animals' (pp. 6-8) 'Abattoir and
lairage' (pp. 9-19); 'Ante-mortem inspection -
post-mortem inspection' (pp. 20-34); 'Post-mortem
changes' (pp. 35-36); 'Post-mortem contamination'
(pp. 37-38); 'Preservation of meat and meat by-
products' (pp. 39-42); 'Inspection of poultry'
(pp. 43-46); 'Helminths in meat inspection' (pp.
47-53); 'Alphabetical list of conditions and
diseases found on post-mortem inspection and
judgement' (pp. 54-65); 'Aids of meat inspection'
(pp. 66-68); 'The law and administration of meat
inspection' (pp. 69-72); 'Export of meat' (pp. 73-
76). VJG

1002

Practical meat inspection. [A book]

Wilson, A.

vii + 196pp. (1968) [En] Oxford & Edinburgh:
Blackwell Scientific Publications. Price 40s.
[Public Health Dept., Birmingham, England]

This book deals with the practical aspects of the
subject and is suitable for trainee meat
inspectors. Chapters include: "Sex characteristics
and estimation of age" (pp. 66-71); "Abnormal and
general pathological conditions" (pp. 72-83);
"Judgement and specific diseases" (pp. 84-97);
"Parasites and parasitic diseases" (pp. 98-122);

"Affections of specific parts and tumours" (pp. 123-42); "Diseases of poultry and rabbits" (pp. 143-53); "Meat preservation and meat products" (pp. 154-76); "Meat inspection and legislation" (pp. 184-87). JRG

1003

Textbook of meat inspection. [A book] Thornton, H. viii + 596pp. (1968) [En] London: Bailliere, Tindall and Cassell Ltd. Price 75s. [Dept. of Veterinary Services, Ministry of Agric., Rhodesia]

This 5th revised edition of the text-book last published in 1962 contains additional information on abattoir sanitation. The section on tuberculosis in cattle has been reduced. Sections given fuller consideration are: "Foot-and-mouth disease" (pp. 34-41); "Rinderpest" (pp. 252-53); "Swine fever" (pp. 253-59); "Bovine cysticercosis" (pp. 372-80); "Schistosomiasis" (pp. 388-89); "Anaplasmosis" (p. 397). New sections by J. F. Gracey deal with the Northern Ireland meat inspection recording system and chemical residues in food. JRG

1004

[Acceleration of cooling, freezing and defrosting of meat.] Intensifikatsiya okhlazhdeniya, zamorazhivaniya, i razmorazhivaniya myasa. [Book]

Sheffer, A. P.; Saatchan, A. K.; Konchakov, G. D. 375pp. (1972) [many ref. Ru] Moscow, USSR, Pishchevaya Promyshlennost'. Price 2.75 r

This book contains the following chapters: Quick meat cooling (pp. 8-132); meat freezing in blocks (pp. 133-227); Meat freezing by means of a one phase method (pp. 228-311); Accelerated meat thawing (pp. 312-365); and Cold treatment and storage of meat in future years (pp. 366-370). STI

1005

[Commodities processed in meat factories including livestock, poultry and slaughterhouse products.]

Tovarovedenie myaso-promyshlennykh zhivotnykh, ptitsy i produktov uboya. [Book] Alekseev, S. N.

207pp. (1972) [many ref. Ru] Moscow, USSR, Pishchevaya Promyshlennost'. Price 0.80 r

Requirements concerning livestock and poultry quality before slaughter are discussed in detail. The book is for specialists in livestock production and livestock processing including those in slaughterhouses and meat processing plants. The main chapters deal with: general information on slaughterhouse livestock; cattle, pork, sheep and goats; horses and camels; poultry; rabbits; meat; and other slaughterhouse products. STI

1006

[Safety techniques in meat processing plants.] Tekhnika bezopasnosti na myasopererabatyvayushchikh predpriyatiyakh. [Book]

Shashilova, L. N.

150pp. (1972) [En] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'.

1007

[Apparatus and technical equipment in the meat industry.] Aparatura i urzadzenia techniczne w przemyśle miesnym. [A book] Maciejewski, W.

293pp. (1970) [Pl] Warsaw, Poland: Panstwowe Wydawnictwa Szkolnictwa Zawodowego. Price 14 zł.

This book gives a general review of technical equipment used in meat industries and discusses principles for linking individual items of equipment into production lines. It gives information necessary for the construction of such machinery, its operation and repair. The main chapters deal with: transportation in meat industries; machinery and equipment in cattle fattening stations; technical equipment in slaughter houses; mechanized slaughtering lines; chilling and freezing equipment; stomach and intestine processing machines; waste and byproduct processing machines; meat curing equipment; meat cutting equipment; heat processing equipment; equipment of meat canning stations; fat rendering machinery; water supply in meat industries; waste water disposal equipment; mechanization and automation in meat industries; and care of machinery in meat industries. STI

1008

[Meat and meat product technology and equipment in meat factories.] Tekhnologiya myasa i myasoproduktov i oborudovanie myasokombinatov. [A book]

Yanushkin, N. P.; Lagosha, I. A.

662pp. (1970) [29 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya promyshlennost'. Price 1.58 roubles

This book, written as a textbook for students studying engineering and economics and students of meat technology, has chapters on: Transportation, housing, slaughtering, and cutting the cattle carcasses; Meat, its composition and inspection, processing of by-products, cold processing of meat and cold storage; Cured meat products and ham; Production of smoked meat products; Canned meat products and meat concentrates; Fat rendering and processing; Production of oils and feeding stuff; Hide and hair processing; Glue and gelatin production; and Poultry and egg processing. STI

1009

[Equipment and machinery in the meat industry.] Aparatura i urzadzenia techniczne w przetworstwie

mies. [A book]

Piotrowski, W.

171pp. (1969) [Pl] Warsaw, Poland: PWSZ. Price 8 zl.

This book covers the design and construction of the main types of equipment used in the meat processing industry, including operation and repair. The influence of different machines on processing methods is explained with special reference to the quality of the finished products. The text includes numerous diagrams. STI

1010

[Ultrasound and its application to technological processes in the meat industry.] Ultrazvuk i ego primenenie v tekhnologicheskikh protsessakh myasnoi promyshlennosti. [A book]

Zayats, Yu. F.

290pp. (1970) [223 ref. Ru] Moscow, USSR: Pishchevaya Promyshlennost. Price 0.97 rouble.

The following topics are included: characteristics of ultrasound and apparatus used for measurements; biological effects; effects on live tissue; intensification of osmotic and diffusion processes in an ultrasound field; emulsification and dispersion by means of ultrasound; application of ultrasound in mechanization of cleaning processes; gas/liquid separation by means of ultrasound; control and measuring apparatus based on ultrasound action; applications for intensification of crystallization processes, heat exchange, elimination of incrustations and for welding of plastics materials. The book is intended for specialists in the meat processing industries. STI

1011

[Meat. Nature - preparation - distribution.] La viande. Nature- preparation - distribution. [A book]

Thieulin, G.

186pp. (1970) [8 ref. Fr] Paris, France: Max Brezol

This book contains 6 chapters: Definitions and technological considerations (pp. 13-22); Composition and post-mortem changes of meat (pp. 23-28); Anatomy and differential characteristics (pp. 29-51); Butcher's cuts (pp. 53-110); Quality and grades (pp. 111-58); and Distribution (pp. 159-72). Numerous illustrations and a 4-pp. subject index are included. HBr

1012

[Technical equipment in meat industry undertakings.] Tekhnologicheskoe oborudovanie predpriyatii myasnoi promyshlennosti. [A book]

Peleev, A. I.

3rd edition 520pp. (1971) [148 ref. Ru] Moscow, USSR: Izdatel'stvo Pishchevaya Promyshlennost'. Price 1.80 rouble

This textbook, intended for students of meat and dairy science in institutions of higher learning, consists of the following main chapters: Bases of

calculation and construction of technical equipment in meat industry undertakings (pp. 5-98); Hoist and conveyor equipment (pp. 99-163); Slaughter and jointing equipment for farm animals and poultry (pp. 164-246); Equipment for mechanical processing after slaughter (pp. 247-327); Equipment for cutting up, portioning, shaping and packaging (pp. 328-389); Equipment for heat and diffusion treatment of meat products (pp. 390-485); and Multi-unit equipment (pp. 486-504). SKK

1013

[Handbook on manufacture of technical products in meat factories.] Spravochnik po proizvodstvu tekhnicheskikh fabrikatov na myasokombinatak. [A book]

Liberman, S. G.; Petrovskii, V. P.

3rd edition 408pp. (1969) [125 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 1.63 Roubles

This illustrated book, intended for engineering and technical personnel in the meat ind., deals with manufacture of animal feeds and ind. fats from condemned carcasses and meat and from inedible residues of the meat ind. It consists of the following chapters: 'Raw materials' (pp. 5-23); 'Transporting of raw materials' (pp. 23-54); 'Preparation of raw materials for processing' (pp. 54-75); 'Manufacture of animal feeds and ind. fats by the dry process in horizontal vacuum vats' (pp. 75-167); 'Manufacture of animal feeds and ind. fats on continuous-process and mechanized lines' (pp. 167-214); 'Manufacture of animal feeds and ind. fats by the wet process' (pp. 214-28); 'Chemical and fermentation methods of processing raw materials' (pp. 228-39); 'Installations for utilizing condemned meat and dead animals' (pp. 239-50); 'Preparation of feed meals' (pp. 250-68); 'Quality requirements for animal feeds and standards for natural losses in transporting and storage' (pp. 269-290); 'Processing of rendered fats' (pp. 291-329); 'Quality requirements for ind. fats and methods of assessment' (pp. 329-35); 'Manufacture of lubricating oils' (pp. 335-51); 'Processing of keratin-containing raw materials' (pp. 351-74); and 'Household soap manufacture' (pp. 374-96). SKK

1014

[Hydraulic drive systems in meat factory machinery.] Gidravlicheskie privody v tekhnologicheskome oborudovanii predpriyatii myasnoi promyshlennosti. [A book]

Peleev, A. I.; Aleshin, D. I.; Klimenko, M. N.

211pp. (1969) [20 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 0.63 Roubles

This illustrated book, intended for specialist workers in the meat ind., consists of a brief introduction and the following chapters: 'Basic equipment of hydraulic drive systems' (pp. 8-47); 'Ancillary equipment of hydraulic drive systems' (pp. 47-116); and 'Machinery with hydraulic drive systems in meat factories' (pp. 116-68). Machinery

and equipment characteristics are presented in 46 appendices (pp. 169-208). SKK

1015

[Principles of general automation of technological processes in the meat and dairy industries.] Osnovy kompleksnoi avtomatizatsii tekhnologicheskikh protsessov myasnoi i molochnoi promyshlennosti. [A book] Lapshin, A. A. 296pp. (1969) [39 ref. Ru] Moscow, USSR: Izdatel'stvo 'Pishchevaya Promyshlennost'. Price 1.08 Rouble

This illustrated students' text-book consists of the following chapters: 'Principles of development of automated technological processes in the meat and dairy ind.' (pp. 5-26); 'Systems of equipment and design for automatic control' (pp. 27-134); 'Automation of control of technological processes in the meat and dairy ind.' (pp. 135-223); 'Systems planning for general automation of technological processes' (pp. 224-61); and 'Economic efficacy of general automation of manufacturing processes' (pp. 262-80). Symbols and codes for denoting physical constants, conduits, leads and components are presented in 3 appendices (pp. 282-87). SKK

1016

Fresh meat processing. [A book]

Karmas, E.

Food Processing Review, Noyes Data Corporation 12: 236pp. (1970) [En] Park Ridge, New Jersey: Noyes Data Corporation. Price \$35

This review is based on US Patents relating to the processing of fresh meat, and covers essential developments since 1960. Part I includes chapters on: Tenderness; Flavour and tenderness; Flavouring; Colour; and Integral texture. Part II includes chapters on: Moisture retention; Antimicrobial treatment; Ionizing radiation; and Other methods of preservation. A company index, inventor index and US Patent number index are provided. JN

1017

[Technology of meat processing I.] Technologia przetworstwa miesa.I. [A book]

Klossowski, T.; Miskiewicz Boguslawska, Z. 254pp. (1968) [Pl] Warsaw: PWSZ Price 11 zl.

The structure, labour organization and a historical review of the development of the meat industry are described. Cattle for slaughter and the appropriate operations are discussed. Safety and personnel hygiene in slaughterhouses, meat storage and heat processing are mentioned. Smoking, salting and preserving are dealt with. Production of bacon and rendering of animal fats are discussed. Finished products are described and classified. STI

1018

[Technology of meat processing I.] Technologia przetworstwa miesa.I. [A book]

Klossowski, T.; Miskiewicz Boguslawska, Z. 254pp. (1968) [Pl] Warsaw: PWSZ Price 11 zl.

The structure, labour organization and a historical review of the development of the meat industry are described. Cattle for slaughter and the appropriate operations are discussed. Safety and personnel hygiene in slaughterhouses, meat storage and heat processing are mentioned. Smoking, salting and preserving are dealt with. Production of bacon and rendering of animal fats are discussed. Finished products are described and classified. STI

1019

[Technology of meat processing II.] Technologia przetworstwa miesa.II. [A book]

Klossowski, T.; Miskiewicz-Boguslawska, Z. 214pp. (1968) [Pl] Warsaw: PWSZ Price 10 zl.

This book discusses the economic, technical, and hygienic aspects of slaughterhouse operations and the handling of by-products. Further sections deal with factory production of smoked meats, sausages and pasteurized and sterilized meat products. STI

1020

[Technological variations in the quality of meat products.] Technologiczne odchylenia jakosci wyrobow miesnych. [A book]

Pezacki, W.

585pp. (1968) [Pl] Warsaw: PWRL Price 63 zl.

The practical aspects of: selecting slaughterhouse raw materials; the principles of planning the quality of meat products; determining the colour of meat and changes in colour during production are discussed. Consistency and binding qualities are covered as well as the technology and determination of juiciness and flavour of meat. The book also contains chapters on fats, smoked-meat products, preserves, the principles of producing preserved meat, quality deviations and a review of the basic quality deficiencies. Tins for preserving meat and smoked-meat products, their closures and sealing and the appropriate technological procedures are also mentioned. STI

1021

[USSR State Standards. Meat and canned meat.] SSSR Gosudarstvennye standarty. Myaso i myasnye konservy. [A book]

Savina, A. P. (Editor)

548 pp. (1968) [Ru] Moscow: Izdatel'stvo Komiteta Standartov, Mer i Izmeritel'nykh Priborov pri Sovete Ministrov SSSR

Some 90 Soviet standards accepted up to 1st Nov. 1967 are given under the following headings: meat; canned meat; methods of analysis; packaging and marking; cattle for slaughter; and containers. FL

1022

[By products and their processing.] Subprodukty i ikh obrabotka. [A book]
Rein, L. M.; Gritsai, E. V.
95pp. (1970) [13 ref. Ru] Moscow, USSR:
Izdatel'stvo Pishchevaya promyshlennost'. Price 0.13 rouble

Problems of technological processing of meat industry by-products, and equipment used for this purpose are dealt with. Sanitary and hygienic measures in the by-products processing departments are discussed as well as safety precautions. The book is accompanied by 40 illustrations. STI

1023

[Blood of slaughtered animals and its processing.] Krov' uboynykh zhivotnykh i ee pererabotka. [A book]
Pozhariskaya, L. S.; Liberman, S. G.; Gorbatov, V. M.
424pp. (1971) [69ref. Ru] Moscow, USSR:
Izdatel'stvo "Pishchevaya promyshlennost". Price 1.34 r.

The main chapters of the book deal with: trends in utilization of blood of slaughtered animals; blood morphology and its physical and chemical properties; blood collection; blood treatment; blood drying for the production of edible and technical albumin; blood dehydration for the production of feedingstuffs; blood evaporation; food products and semi-manufactured products from blood; pharmaceutical products from blood; feedingstuffs and commercial products from blood; hygienic requirements. STI

1024

[Mechanization of continuous formation of sausages and their binding.] Mekhanizatsiya nepreryvnogo formovaniya kol'basnykh batonov i ikh perevyazki. [Book]
P'yanov, L. A.

231pp. (1971) [39 ref. Ru] Moscow, USSR,
Izdatel'stvo "Mashinostroenie". Price 0.86 rouble

Experience with automatic machines, and equipment design and manufacture are discussed. Machines and equipment manufactured in the USSR and abroad are described. The book contains the following chapters: Machines and equipment for formation of casings; Sausage forming and binding machines; Salami forming machines without binding; and Machines for forming salamis and providing them with metallic clips. STI

1025

[Heating equipment for sausage manufacture.] Teplovoe oborudovanie kolbasnogo proizvodstva. [A book]
Peleev, A. I.; Brazhnikov, A. M.; Gavrilova, V. A.
378pp. (1970) [78 ref. Ru] Moscow, USSR:
Pishchevaya Promyshlennost'. Price 1.34 roubles

1026

[Technology and macroscopical, histological and biochemical control of sausages in Greece.] [A book]

Georgakes, S.
175pp. (1967) [321 ref. Gr, de, en] Thessaloniki, Greece: Aristotelian Univ.

A study was made of the production methods and sanitary conditions in sausage factories in various areas of Greece. The types of sausage produced are classified, on the basis of production methods used, into 3 groups. It is concluded that production methods and sanitary conditions cannot be considered satisfactory. Defects occurring in sausages due to errors or short-comings in the processing methods are described. Macroscopic, histological and biochemical methods of examining sausages are described. Greek and imported sausages were examined, and the Greek sausages were found to be inferior in several aspects to imported types. Since there is no standardization or grading of sausages in Greece, the author suggests classification into 3 categories, each category having 3 quality grades. He further suggests the

proportions of meat, moisture, fat, protein, etc. to be contained in sausages of each category. It is recommended that frozen meat be more widely used in sausage production and that the quantity of starch included be reduced. Other measures for improving sausage production are outlined. [From En summary.] JA

1027

[Technology and equipment for sausage production.] Tekhnologiya i oborudovanie kolbasnogo proizvodstva. [A book]
Mishenko, E. P.; Gol'dman, E. I.
302pp. (1969) [13 ref. Ru] [Moscow, USSR:
Pishchevaya promyshlennost. Price 47 k.

Characteristics of raw and auxiliary materials used in sausage production are described, together with the processes employed in production of sausage products and semi-manufactured products and the equipment used. Contents are: raw materials for sausage production, including meat by-products, blood, animal fats, milk, eggs, starch, flour, sugar; auxiliary materials, i.e. salt, nitrites, nitrates, phosphates, sodium glutamate, binders; cutting, boning and treatment of meat; grinding and salting of raw materials; preparation of the cut and mincing according to requirements of different sausage products; filling of the meat; binding the finished product; heat treatment of sausage; various sausage products and characteristics of technological production processes for each variety; production of sausages in relation to the different production stages; production of meat semi-manufactured products; continuous mechanized production lines; quality control of the product; organization and economics of production; safety measures during production of sausages. STI

1028

[Technology of sausage and cured-meat manufacture.] *Tecnología de los productos carnicos (embutidos y salazones)* [A book] Manev, G. I.; Fernandez Garcia, A. xii+308pp. (1968) [45 ref. Es] Havana, Cuba: Ciencia y Tecnica, Inst. del Libro,

This illustrated book, primarily intended for production managers and technicians in meat factories and for students of the 'Ejercito Rebelde' Food Technology Inst., consists of the following main chapters: 'Raw materials for sausage production' (pp. 1-63); 'General technology of sausages' (pp. 65-166); 'Recipes for and manufacture of sausages and cured meat products' (pp. 167-253, dealing with 62 types of sausage and cured meat); and 'Process and quality control in factories' (pp. 255-306). SKK

1029

Sausage and small goods production. [A book] Gerrard, F. xv+245pp. (1969) [En] London: Leonard Hill Books. Price 63s

This is the 5th revised edition of a book first published in 1935. It is intended mainly for the craftsman sausage maker and deals with all aspects of production. Chapters included are: "Equipment", (pp. 5-15); "Small trade equipment", (pp. 16-30); "Sausage ingredients", (pp. 31-39); "Fillers", (pp. 40-44); "Seasonings and additives", (pp. 45-59); "Sausage containers", (pp. 60-69); "Storage and preservation", (pp. 70-84); "Meat curing", (pp. 85-102); "Costing", (pp. 103-106); "Preparation of sausages", (pp. 107-29); "Continental and American types", (pp. 130-39); "Factory recipes", (pp. 140-44); "Cooked meats", (pp. 145-68); "Meat for canning", (pp. 169-73); "Utilization of waste", (pp. 174-85); "Simple quality control", (pp. 186-213). The new statutory instruments, numbers 862, 860, and 861 concerned with sausages, meat pies and sausages rolls, and canned meat products respectively are given in pp. 215-39. JRG

1030

[Hygienic and bacteriological examination of sausages.] *Sanitarno-mikrobiologicheskoe issledovanie kolbasnykh izdelii*. [A book] Kheifets, M. A. 88pp. (1968) [60 ref. Ru] Leningrad: Izdatel'stvo 'Meditsina'. Price 22 Kopecks

This booklet, intended for sanitary and veterinary inspectors, and personnel of food enterprises, laboratories, deals with the raw materials and preparation of the different kinds of sausage manufactured in the USSR, their bacteriological examination, methods of bacteriological analysis, and control of products and processes. The author quotes freely from the experience of the Central Lab. of the Leningrad Meat Combine. SKK

1031

[Rabbit meat and its cooking.] *Kralicje mäso a jeho kuchynska uprava*. [A book] Mucha, R.; Terlanday, L. 112 pp. (1968) [Cs] Bratislava: Slovenske vydavateľstvo podohospodarskej literatury. Price 8,- Kcs.

Many recipes for the culinary preparation of rabbit meat are given. Attention is paid to the qualities of rabbit meat as a dietary food for persons suffering from digestive disorders. Information is given concerning the breeds of rabbit suitable for (i) meat production, (ii) large scale production, (iii) cross-breeding. Consideration is given to the importance of rabbit meat for human nutrition, the factors affecting the quality of rabbit meat, the guidelines for sanitary evaluation of rabbit meat and its preparation at slaughterhouses. STI

1032

Commercial chicken production manual. North, M. O.

viii+645pp. ISBN 0 87055 119 1 (1972) [38 ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$30.00 (US), \$31.00 (Foreign)

This comprehensive service manual and reference guide for poultry caretakers, hatcherymen, servicemen, and supervisors covers the subject under the chapter headings: Modern breeds of chickens (pp. 1-10); Structure of the chicken (pp. 11-20); Formation of the egg (pp. 21-30); Development of the chick embryo (pp. 31-35); Chick hatcheries (pp. 36-50); Hatchery equipment (pp. 51-59); Maintaining hatching egg quality (pp. 60-73); Factors affecting hatchability (pp. 74-94); Operating the hatchery (pp. 95-113); Hatchery management (pp. 114-129); Poultry housing (pp. 130-149); Poultry house equipment (pp. 150-163); Brooding management (pp. 164-184); Growing management (pp. 185-213); Laying management (pp. 214-229); Breeding management (pp. 230-253); Cage management (pp. 254-289); Lighting management (pp. 290-306); Force molting (pp. 307-324); Broilers and roasters (pp. 325-358); Poultry genetics (pp. 359-372); Genetic management (pp. 373-384); Production standards (pp. 385-394); Record management (pp. 395-409); Digestion and metabolism (pp. 410-416); Major feed ingredients (pp. 417-428); Vitamins and trace ingredients (pp. 429-442); Feed fundamentals (pp. 443-449); Nutritive requirements for growth (pp. 450-452); [Continued in following abstr.] JN

1033

Commercial chicken production manual. North, M. O.

viii+645pp. ISBN 0 87055 119 1 (1972) [38 ref. En]

[Continued from preceding abstr.] Nutritive requirements for egg production (pp. 453-456); Nutritive requirements for hatching egg production (pp. 457-458); Analysis of feedstuffs (pp. 459-463);

Poultry rations (pp. 464-471); Feeding growing birds (pp. 472-484); Feeding laying hens (pp. 485-496); Feeding breeding birds (pp. 497-512); Feeding broilers and roasters (pp. 513-516); Bacteria, viruses, protozoa, and fungi (pp. 517-525); Developing immunity (pp. 526-533); Drugs and antibiotics used in disease control (pp. 534-542); Poultry diseases (pp. 543-600); Parasites, insects, mites, and rodents (pp. 601-608); Disease prevention management (pp. 609-618); and Waste management (pp. 619-623). A detailed 16-pp. subject index is appended. JN

1034

[Technology of poultry production for meat.]
Tekhnologiya proizvodstva myasa ptitsy. [A book]
Stoltyar, T. A. (Editor)
287pp. (1971) [Ru] Moscow, USSR: Izdatel'stvo Kolos. Price 0.64 rouble

This book covers the major aspects of the raising, slaughtering and processing of broiler hens (pp. 5-116), turkeys (pp. 177-191), ducks (pp. 192-242), geese and Guinea fowl (pp. 243-285). HBr

1035

[Use of structural analysis in the poultry industry.]
Vypracovanie vykonavacieho planu a planovanych kalkulacii metodou strukturalnej analyzy na samocinnom pocitaci v hydinarskom priemysle. [A book]
Sternberg, J.; Chavkova, V.
69pp. (1971) [Sk] Bratislava, Czechoslovakia: Vyskumny Ustav Hydinarskeho priemyslu.

1036

[Installation of equipment in poultry processing plants.]
Montazh tekhnologicheskogo oborudovaniya ptitsefabrik i ptitsepererabatyvayushchikh predpriyatii. [A book]
Gal'perin, L. M.
256pp. (1971) [9 ref. Ru] Moscow, USSR: Izdatel'stvo Literatury po Stroitel'stvu. Price 0.42 rouble

This practical handbook for specialists engaged in poultry processing contains the following chapters: General knowledge on poultry plants and poultry processing enterprises; Organization of equipment mounting operations; Equipment, machinery and apparatus; Installation of equipment in poultry processing plants; Installation of equipment in poultry feeding stations; Installation of equipment for poultry freezing and processed poultry storage; and Safety of labour and fire precautions. STI

1037

[Equipment for poultry processing plants.]
Oborudovanie ptitsepererabatyvayushchikh

predpriyatii. [A book]
Bulanov, N. A.; Faleev, P. A.; Boltenkov, I. M.
300pp. (1968) [13 ref. Ru] Moscow, Pishchevaya Promyshlennost. Price 36 k.

The book, intended for personnel in the poultry industry, describes equipment used for handling, housing and transporting live poultry. Descriptions of equipment for stunning and bleeding the birds, bleeding troughs and suspension conveyors are followed by equipment and machines for heat processing slaughtered poultry, various types of mechanical equipment for de-feathering, and equipment for final treatment of

slaughtered poultry. It includes the technology of waxing, equipment for evisceration and the method of processing viscera, together with workshop equipment; cutting machines, halving saws, cutters, mixers, autoclaves, sterilizers, machines for processing fat and feathers, and

driers. A further section deals with equipment for processing eggs, for the production of egg constituents and dried egg-yolk. Complete lines are described for processing feathers: washers, driers, de-feathering and packaging equipment and cleaning machines. STI

ADDITIVES

1038

Food chemicals codex. [Book]
USA, National Research Council, Committee on Specifications, Food Chemicals Codex of the Committee on Food Protection
Second edition xvi + 1039pp. ISBN 0 309 01949 4
(1972) [En] Washington, DC, National Academy of Sciences. Price \$20.00

This revised edition gives a description, method of identification, specifications, tests, packaging and storage requirements and use in foods for 639 chemicals added to or used in contact with foods. General tests and apparatus are also described. A list of chemicals, classified according to functional use is given. An 18pp. subject index is appended. JN

1039

Handbook of food additives. [A book]
Furia, T. E. (Editor)
viii + 771 pp. (1968) [Numerous ref. En]
Cleveland, Ohio, USA: Chemical Rubber Co. 1968
Price 250s.

This handbook contains sections on the following subjects: colour additives in food; enzymes; vitamins and amino acids; antimicrobial food additives; antioxidants as food stabilizers; acidulants in food processing; sequestrants in food; gums; starch in the food industry; surface active agents; polyhydric alcohols; natural and synthetic flavourings; flavour potentiators and

non-nutritive sweeteners. The final 200 pages contain summaries of the food additives generally recognized as safe by US Government regulations. The additives are listed alphabetically. There is an extensive bibliography. JA

1040

Handbook of food additives. [Book]

Furia, T. E. (Editor)

Second edition xi+998pp. ISBN 0 87819 542 4 (1972) [many ref. En] Cleveland, Ohio 44128, USA, CRC Press. Price \$39.50 [CIBA-GEIGY Corp., Ardsley, New York, USA]

This 2nd edition reflects important changes in the food industry since the 1st edition was published in 1968. In Part I, the subject is covered under the headings: Introduction, by T. D. Luckey (pp. 1-26, 96 ref.); Enzymes, by L. A. Underkofler (pp. 27-84, 201 ref.); Vitamins and amino acids, by B. Borenstein (pp. 85-114, 11 ref.); Antimicrobial food additives, by D. F. Chichester & F. W. Tanner, Jr. (pp. 115-184, 273 ref.); Antioxidants as food stabilizers, by B. N. Stuckey (pp. 185-223, 68 ref.); Acidulants in food processing, by W. H. Gardner (pp. 225-270, 467 ref.); Sequestrants in food, by T. E. Furia (pp. 271-294, 187 ref.); Gums, by R. E. Klose & M. Glicksman (pp. 295-350, 323 ref.); Starch in the food industry, by O. B. Wurzburg (pp. 361-395, 19 ref.); Surface active agents, by W. C. Griffin & M. J. Lynch (pp. 397-429, 58 ref.); Polyhydric alcohols, by W. C. Griffin & M. J. Lynch (pp. 431-455, 176 ref.); Natural and synthetic flavorings, by R. L. Swaine (pp. 457-512, 124 ref.); Flavor potentiators, by L. B. Sjöström (pp. 513-521, 13 ref.); Non-nutritive sweeteners, by A. Salant (pp. 523-585, 624 ref.); Color additives in food, by J. Noonan (pp. 587-615, 17 ref.); Phosphates in food processing, by R. H. Ellinger (pp. 617-780, 1005 ref.). In Part II, the regulatory status of approx. 2000 direct food additives is tabulated, listing alternative names, FEMA (Flavor & Extract Manufacturers' Association) No., FDA regulation and Limitations. A detailed 19-pp. subject index is included. JN

1041

[Use of chemical substances in the manufacture of foods.] Verwendung chemischer Stoffe bei der Herstellung von Lebensmitteln. [Book]

Prahl, L. (Editor)

253pp. (1971) [22pp. of ref. De] Leipzig, German Democratic Republic, VEB Fachbuchverlag Price M 15.80

This is a translation of a Russian original, published by the Pishchevaya Promyshlennost' Publishing House, Moscow 1967. The 6 chapters, written by individual specialists in the relevant subject, cover: Preservatives (pp. 11-33); Antioxidants (pp. 34-103); Blood stabilization (pp. 104-126); Stabilizers for juice retention in meat (pp. 127-157); Colour stabilizers for meat products

(pp. 158-194); and Synthetic resin ion exchangers (pp. 195-215). An additional chapters covers legislation in the German Democratic Republic on the aspects covered in the book. A 22-pp. index of references (broken down by individual chapter) and a 7-pp. subject index are included. HBr

1042

[International and unintentional food additives.]

Veshchestva, spetsial'no dobavlyayemye k pishchevym produktam, i tekhnicheskie primesi. [A book]

Nikonov, M.

104pp. [65 ref. Ru] Moscow: Izdatel'stvo 'Pishchevaya Promyshlennost' Price 49 kop.

This book, translated from the original Polish edition of 1966, is intended primarily for technical personnel in various branches of the food industry. The subject is in 4 chapters, as follows; 'General information' (pp. 7-25, including information on Polish legislations and regulations); 'Permitted additive' (pp. 26-48, dealing with Polish code of practice); 'Unintentional additives' (pp. 48-93, dealing with impurities introduced during manufacture); and 'Other foreign substances' (pp. 99-100, dealing with antibiotics, detergents and fallout). SKK

1043

[On the normative problems of food additives in Czechoslovakia.] Zur normativen Problematik der Fremdstoffe in Lebensmitteln in der Tschechoslowakei.

Halacka, K.

Vitalstoffe - Zivilisationskrankheiten 14 (2) 76-80 (1969) [13 ref. De, en, fr] [Trida Obrancu miru 10, Brno, Czechoslovakia]

Regulations pertaining to foreign foods are reviewed. Permitted levels of pesticide residues in plants, colouring matters, antioxidants, antibiotic and oestrogen residues in animals, KI in salt, F in water, added vitamins, chemical preservatives and sweeteners are discussed in some detail. Radio-sterilization of food is not permitted, but can be used at $\leq 10\,000$ rad for retardation of potatoes sprouting. A list of permissible max. levels of harmful elements is given. Attention is also given to endogenous foreign substances. RM

1044

[Antibiotics in the food industry.] Antibiotiki v pishchevoi promyshlennosti. [A book]

Ovcharova, T. P.; Maslennikova, N. M.

102pp. (1969) [121 ref. Ru] Moscow: Izdatel'stvo 'Pishchevaya Promyshlennost' Price 0.27 Rouble

This booklet, intended for research workers and technicians in the food preserving industry, contains chapters on: 'Selective action of antibiotics on microflora of food products' (pp. 5-13); 'Use of antibiotics in preservation of food products' (pp. 13-55, dealing mainly with nisin and its use in dairy products and the canning of

green peas, tomatoes and potatoes); 'Use of antibiotics for increasing storage life of food products' (pp. 55-84, dealing primarily with dairy products, meat, poultry, fresh fish, vegetables, and berries); and 'Determination of antibiotics in food products' (pp. 88-93). SKK

1045

Lactic acid. Properties and chemistry of lactic acid and derivatives. [A book]

Holten, C. H.

xxv+566pp. ISBN 3 527 25344 0 (1971) [2219 ref. En] Weinheim, German Federal Republic: Verlag Chemie GmbH

This extensive work of reference, intended for use by workers in both pure and applied sciences, is the result of a thorough examination of the literature (~3000 references) on lactic acid since its discovery by Scheele in 1780. Physical and chemical properties, covering syntheses as well as reactions, are presented systematically and critically in considerable detail and summarized as tables, with the addition of graphs wherever possible. There are 2 contributed chapters: Biochemistry, by D. Reh binder (pp. 412-460, 207 ref.) and Analytical chemistry, by A. Müller (pp. 461-515, 174 ref.). Comprehensive author and subject indexes are included. EJM

1046

Phosphates as food ingredients. [Book]

Ellinger, R. H.

190pp. (1972) [1005 ref. En] Cleveland, Ohio, USA, CRC Press. Price \$26.50 [Kraft Foods, Chicago, Illinois, USA]

Chapters in this book are: Introduction (pp. 1-2); Nomenclature, classification and structure of phosphates used in foods (pp. 3-14), which covers orthophosphates, pyrophosphates, tripolyphosphates, straight chain polyphosphates and cyclic metaphosphates; Some general chemical characteristics of phosphates (pp. 15-17); Toxicology of the food phosphates (pp. 19-25); The attitudes of regulatory agencies [in the USA] (pp. 27-29); The functions and applications of phosphates in food systems (pp. 31-163), which covers applications in beverages, cereal products, dairy products, egg products, fats and oils, fruit and vegetable products, gums and gels, meat processing, poultry processing, seafood processing, food protein processing, starch processing, and sugar processing and use as microbiological inhibitors; and Future trends (p. 165). JA

1047

Symposium: phosphates in food processing. [A book]

deMan, J. M.; Melnychyn, P. (Editors)

ix+242pp. ISBN 0 87055 105 1 (1971)

[Numerous ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc. Price \$20.00 (US), \$21.00 (Foreign) [Dept. of Food Sci., Ontario Agric. Coll., Univ. of Guelph, Canada]

Papers given in this book were presented at a symposium on phosphates in food processing held at Guelph Univ., Ontario, Canada in 1970. The symposium was divided into 4 sections: Chemistry, nomenclature, manufacture, and analysis of phosphates (pp. 1-48); Interactions between phosphates and individual food components (pp. 49-102); The use of phosphates in food products (pp. 103-212); and Public health consideration of the use of phosphates in food processing (pp. 213-234). Individual papers were: Chemistry of the phosphates and condensed phosphates, by J. R. van Wazer (pp. 1-23, 39 ref.); The nomenclature and manufacture of phosphates, by R. N. Bell (pp. 24-37, 17 ref.); Analysis of phosphates in foods, by J. M. deMan (pp. 38-48, 24 ref.); Interaction of milk proteins with phosphates, by P. Melnychyn & J. M. Wolcott (pp. 49-64, 45 ref.); Interactions between phosphates and meat proteins, by R. Hamm (pp. 65-82, 49 ref.); Interactions between phosphates and plant proteins, by M. M. Hamdy (pp. 83-90, 28 ref.); Interactions between phosphates and gelling and thickening agents, by R. E. Sand & C. S. Sodano (pp. 91-102, 20 ref.); Starch phosphates, by F. E. Kite (pp. 103-119, 41 ref.); The use of phosphates in cheese processing, by L. G. Scharpf, Jr. (pp. 120-157, numerous ref.); General concepts applicable to the use of polyphosphates in red meat, poultry and seafood processing, by J. H. Mahon, K. Schlamb & E. Brotsky (pp. 158-181, 45 ref.); [Continued in following abstr.] JA

6 T 336

Symposium: phosphates in food processing. [A book]

deMan, J. M.; Melnychyn, P. (Editors)

ix+242pp. ISBN 0 87055 105 1 (1971)

[Numerous ref. En]

[Continued from preceding abstr.] The use of phosphates in the fruit and vegetable industry, by W. H. Kibbel, Jr. (pp. 182-193, 57 ref.); The use of phosphates in the cereal and baking industry, by J. E. Stahl & R. H. Ellinger (pp. 194-212, 52 ref.); and The public health aspects of the use of phosphates in foods, by D. G. Chapman & L. I. Pugsley (pp. 213-234, 33 ref.). JA

1049

Food Additives and Contaminants Committee report on the review of the Emulsifiers and Stabilizers in Food regulations, 1962. [A book]

United Kingdom, Ministry of Agriculture, Fisheries and Food

57pp. (1970) [26 ref. En] London: HM Stationery Office. Price 5s. 6d.

Recommendations made by the Food Additives and Contaminants Committee are reported. The

following 4 appendices are included: 'List of those who made representations or gave information' (pp. 18-19); 'The Emulsifiers and Stabilizers in Food regulations, 1962' (pp. 20-26); 'Proposed specifications for permitted emulsifiers and stabilizers' (pp. 27-35) and 'Table of recommendations on individual substances' (pp. 36-38). The Pharmacology Subcommittee report on the 1962 review is incorporated as an annex (pp. 39-56). VJG

1050

Gum technology in the food industry. [A book]

Glicksman, M.
xiii + 590pp. (1969) [Numerous ref. En] New York and London: Academic Press. Price 257s. [General Foods Corp., Product Development Lab., Corporate Res. Dept., Tarrytown, New York, USA]

This book, the 8th in the Food Science and Technology Series of Monographs, is a technical compilation on hydrocolloid technology as it pertains to the food industry. Each group of gums is considered individually and information on newer gums not yet approved for food use is also given. Chapters are: Terminology and classification of gums (pp. 1-14, 23 ref.); Functions of gums in food products (pp. 15-55, 60 ref.); Rheology, texture and gums (pp. 56-93, 53 ref.); Natural plant exudates (gum arabic, gum ghatti, gum karaya, gum tragacanth) (pp. 94-129, 107 ref.); Plant seed gums (locust bean, guar, psyllium seed, quince seed) (pp. 130-58, 68 ref.); Pectins (pp. 159-90, 75 ref.); Arabinogalactan (larch gum, stractan) (pp. 191-98, 28 ref.); Seaweed extracts (agar, carrageenan, furcellaran, alginates) (pp. 199-273, 211 ref.); Starches (pp. 274-333, 112 ref.); Microbial gums (dextran, polysaccharides B-1459, B-1973 and Y-1401, phosphomannan Y-2-48) (pp. 334-58, 63 ref.); Gelatin (pp. 359-97, 110 ref.); Cellulose gums (microcrystalline cellulose, sodium carboxymethylcellulose, methylcellulose, hydroxypropylmethylcellulose, hydroxypropylcellulose, methylcellulose, other cellulose derivatives) (pp. 396-471, 211 ref.); Synthetic hydrocolloids (polyvinylpyrrolidone, carboxyvinyl polymers, methyl vinyl ether/maleic anhydride polymers, ethylene oxide polymers) (pp. 472-503, 84 ref.); and Analysis and identification of hydrocolloids (pp. 509-54, 81 ref.). Subject and author indexes are included. JA

1051

[Essential oils as a raw material and the technology of processing them.] Efiromaslichnoo syr'e i tekhnologiya efinnykh masel. [A book]

Anon.
421pp. (1968) [Ru] Moscow: Pishchevaya promyshlennost' Price 2 r. 92 k.

Effect of climate on the production and quality of essential oils in plants is discussed, as well as the effect of external factors on their content. The results of nutmeg, sage and coriander

selections are given. Parent species of peppermint with a high menthol content are also mentioned. The content of essential oils in anise and anisette is evaluated. Further expt. with, and results of, growing plants containing essential oils under different conditions and in various locations of the USSR are described. New processing techniques in the USSR for plants containing essential oils are given. STI

1052

Proceedings of the 3rd Nordic Aroma Symposium.

[Book]

Anon.

240pp. (1972) [Numerous ref. En]

Papers presented at this symposium, held from 6-8th June 1972 in Hämeenlinna, Finland included: Effect of process conditions in drying liquid foods on aroma retention, by H. A. C. Thijssen (pp. 5-38 & 154, 20 ref.); Aroma retention and recovery during concentration of liquid foods, by C. H. Mannheim (pp. 39-63, 51 ref.); Formation of aroma compounds in yeast fermentation, by H. Soumalainen (to be published in Wallerstein laboratories communications in 1972); The relation of the microflora to the flavour of some dairy products, by M. E. Sharpe (pp. 64-79, 38 ref.); Psychometrical problems in aroma research, by C. A. Akesson (pp. 80-96, 45 ref.); Introduction to the physiology of the olfactory sense, by K. B. Doving (pp. 97-181 & 34, numerous ref.); Some aspects of the toxicology of natural and synthetic flavouring agents, by J. Tuomisto (pp. 182-202; numerous ref.); The isolation and identification of volatile flavour compounds in boiled beef, by S. S. Chang (pp. 203-235); and Meat flavour, a challenge to the flavour industry, by D. K. Kettenes (pp. 236-240, 3 ref.). AA

1053

Fennaroli's handbook of flavour ingredients. [A book]

Furia, T. E.; Bellanca, N. (Editors)
xi + 803pp. (1971) [Numerous ref. En] Cleveland, Ohio, USA: Chemical Rubber Co. Price £18.75

In this well-presented and comprehensive handbook, part I (pp. 3-26) deals with general considerations, covering definitions, nomenclature, assessment and general methods of preparing flavour ingredients; parts II (pp. 33-256) and III (pp. 259-640) consist of detailed descriptions of ~200 natural and ~750 synthetic flavour ingredients including the FDA regulatory status and FEMA proposals; part IV (pp. 643-762) deals with the use of flavour ingredients in food, including the relationship of certain flavour ingredients to taste and flavour, floral and citrus flavours, fruity flavours, bitter flavours, alcoholic beverages (vermouth, bitters, sweet liqueurs, elixirs, distilled liquor imitations and their composition), non-alcoholic beverages (syrups, soft drinks and carbonated beverages, dry

beverage bases, teas and tisanes, cocoa, coffee), baked goods, confections, dairy products (milk, cream, ice cream and sherbet, yoghurt, butter, margarine, cheese), sauces, dressings, condiments and powdered flavours, soups and broths, desserts, and meat, fish and vegetables. The book is well indexed (pp. 765-803). AL

1054

Flavour research. Principles and techniques. [A book]

Teranishi, R.; Hornstein, I.; Issenberg, P.; Wick, E. L.

ix + 315pp. ISBN 0 8247 1663 9 (1971) [Numerous ref. En] New York, USA: Marcel Dekker, Inc. Price £9.30

This well-presented book contains the following chapters: Chemical aspects of flavour (pp. 1-35, 89 ref.); Isolation of flavour concentrates (pp. 37-76, 69 ref.); Gas chromatography separations (pp. 77-106, 36 ref.); Special application of gas chromatography (pp. 107-132, 33 ref.); Mass spectrometry: instrument requirements and limitations (pp. 133-179, 40 ref.); Combined gas chromatography-mass spectrometry: special techniques, data processing (pp. 181-232, 60 ref.); Other identification methods: trapping, NMR, IR, Raman (pp. 233-257, 45 ref.); Correlation with sensory properties (pp. 259-294, 75 ref.). AL

1055

Flavour technology. [A book]

Pintauro, N.

vii + 228pp. SNB 8155 0372 5 (1971) [En] [Park Ridge, New Jersey 07656, USA: Noyes Data Corp. Price \$35.00.]

The information in this book is based on US patents, most of which have been issued since 1960, and relates to the production of natural and synthetic flavours and their synergists. The book serves a double purpose in that it supplies detailed technical information and can be used as a guide to US patent literature in this field; legalistic terminology has been eliminated. Contents are: Spice technology (pp. 3-33); Peppermint and citrus oil process (pp. 34-57); Fruit essences and imitation flavours (pp. 58-81); Dairy flavours (pp. 82-93); Bread flavour (pp. 94-110); Vanilla processes and flavour enhancers (pp. 111-129); Meat flavour technology (pp. 130-154); Meat seasonings and enhancers (pp. 155-172); and Fixation technology (pp. 173-223). The table of contents is organized in such a way as to serve as a subject index. Other indices by company, inventor and patent number are included. JA

1056

Food flavouring - composition, manufacture, and use. [A book]

Merory, J.

2nd edition ix + 478pp. (1968) [Numerous ref. En] Westport, Connecticut: AVI Publ. Co. Inc. Price \$20.00 [Merory Food Flavours, Inc., Fairfield, New Jersey, USA]

This revised and enlarged 2nd edition contains 3 main sections. The 1st, natural food flavourings, contains chapters on fruit flavours, citrus fruits, true fruit colourings, sugar-free fruit flavours, natural flavourings from vegetables and vanilla beans, spices, cocoa, chocolate and coffee. The 2nd section deals with synthetic flavourings, additives and colourings and contains 2 chapters: imitation flavours and US certified colours. The final section contains chapters on the use of food flavourings in bakery products, meat, fish, salads, ice cream, sherbets, water ices, syrups and soft drinks, gelatin desserts, puddings, confectionery products, alcoholic beverages and tobacco. 350 formulae of flavouring compositions and methods for the production of flavours are included. The appendix deals with odour and taste classification, exemption of certain additives from tolerance requirements, FDA definitions and standards relating to vanilla extract and related products, and additions of optional ingredients to non-alcoholic beverages. JA

1057

[Aroma- and flavour-producing substances in foods.] Aroma- und Geschmacksstoffe in Lebensmitteln. [A book]

Solms, J.; Neukom, H. (Editors)

288 pp. (1967) [Numerous ref. De, en] Zürich, Switzerland: Forster-Verlag AG

This book, based largely on a course of lectures given at the Federal Technical College in Zürich in April 1967, is divided into 3 different sections covering recent analytic methods, chemistry and biochemistry, and technological and practical problems. The papers comprise: 'Fundamentals and potential of gas chromatography', by W. Simon (pp. 13-20, De, 19 ref.); 'Application of gas chromatography to the study of food odours', by C. Weurman & G. van Lunteren (pp. 21-34, En, 53 ref.); [Use of thin layer chromatography in the analysis of odour- and taste-producing substances], by H. W. H. Schmidt (pp. 35-46, De, 62 ref.); [Aromatic substances in fruit], by K. Gierschner & G. Baumann (pp. 49-89, De, 254 ref.); [Aromatic substances in milk and milk products], by H. van Duin (pp. 91-102, De, 57 ref.); [S-containing aromatic substances and their formation, particularly in vegetables], by H. Neukom (pp. 103-17, De, 40 ref.); [Roast odours], by H. Streuli (pp. 119-63, De, 172 ref.); [Volatile aromatic substances of coffee], by M. Winter et al. (pp. 165-98, De, 51 ref.); [Flavour potentiators, particularly in meat and vegetables], by J. Solms (pp. 199-221, De, 82 ref.); 'Liquid food evaporation and aroma recovery', by A. I. Morgan, Jr. (pp. 225-35, En, 9 ref.); [Odour concn. and recovery], by F. Emch (pp. 237-52, De, 19 ref.); [Formation and change of aromatic and taste substances in processed foods], by R. H. Egli (pp. 253-75, De, 40 ref.); and [Use of aroma concentrates in processed foods], by R. Riklin (pp. 277-88, De, 9 ref.). HBr

1058

The International Wine and Food Society's guide to herbs, spices and flavourings. [A book]
Stobart, T.

262pp. ISBN 0 7153 4807 8 (1970) [En] London UK: International Wine & Food Publishing Co. Price £3.25

Notes on ~400 herbs, spices and flavourings include details of culinary uses and properties, and common English, American, French, German, Italian, Spanish and botanical names. The introduction discusses the history, flavouring science and growing aspects of herbs. There is a detailed subject index. JN

1059

[Stimulants, spices and flavourings.] Uzywki i przyprawy. [A book]
Wisniewski, M.

107pp. (1969) [Pl] Warsaw: Zakład wydawnictw CRS. Price 12 zł.

A description of stimulants, spices and flavourings from the point of view of merchandize technology is given: coffee, tea, pepper, cinnamon, vanilla, etc. Transport and storage are discussed and Polish standards giving the periods of guarantee, as well as the storage conditions are mentioned. STI

1060

Markets for spices in North America, Western Europe and Japan. [A book]

International Trade Centre UNCTAD/GATT
429pp. (1970) [En] Geneva, Switzerland: Author

Market characteristics (size, use, price, trade channels, commercial practices, publicity and sales promotion) for USA, Canada, UK, W. Germany, France, Italy, The Netherlands, Belgium, Switzerland, Japan, Australia, Spain and Yugoslavia are discussed and tabulated in great detail. The markets for individual spices in the first 10 countries listed above are described. Annexes include: descriptions of >30 spices; harvest calendar of spices and herbs; spice producing areas; contract forms; max. import limits for extraneous matters in spices, seeds and herbs in USA; Canadian Food and Drug Regulations; disadvantages of natural spices and methods of combatting them; bibliography. JN

1061

Pickle and sauce making. [A book]

Binsted, R.; Devey, J. D.; Dakin, J. C.
3rd edition xi+332pp. (1971) [Numerous ref. En]
London, UK: Food Trade Press Ltd. Price £5.50.

5 completely new chapters have been incorporated in this revised and enlarged 3rd edition together with illustrations of modern plants and equipment. New technological methods are covered, replacing old methods rarely now used in sauce and pickle manufacture. Chapters are: Introduction (pp. 1-4, 1 ref.); Vinegar (pp.

5-31, 12 ref.); Salt and its applications in the pickling industry (pp. 32-37, 1 ref.); Herbs and spices for pickle and sauce products, by H. B. Heath (pp. 38-67, 3 ref.); Pickled vegetables, pickles and chutneys (pp. 68-105, 4 ref.); Principles involved in the microbiological keeping quality of pickles and sauces (pp. 106-118, 14 ref.); Thick and thin sauces (pp. 119-169, 7 ref.); Tomato ketchup and tomato chutney (pp. 170-195, 9 ref.); Tomato paste (pp. 196-211); Salad cream, mayonnaise and sandwich spread (pp. 212-237, 13 ref.); Sauerkraut (pp. 238-250, 27 ref.); Pickled cucumbers (pp. 251-268, 49 ref.); Mustard products (pp. 269-274); Olives (pp. 275-289, 17 ref.); Miscellaneous products (pp. 290-301, 1 ref.); Caps and closures for pickles and sauce products, by J. Jack (pp. 302-313), and Factory buildings and equipment (pp. 314-318). Also included are useful tables and data (e.g. table of TS in tomato paste) and a subject index. JA

1062

[Edible salt and its solutions.] Povarennaya sol' i ee rastvory. [A book]

Goncharova, M. V.; Amosova, L. E.;
Volchenko, E. G.; Ostroukhov, I. V.
100pp. (1970) [112 ref. Ru] Leningrad, USSR: Izdatel'stvo Khimiya. Price 0.30 rouble.

This book describes the main sources of edible salt, its production and chemical composition. Physical and mechanical properties of edible salt and its solutions are considered. The book deals further with the effect of edible salt on metals and its corrosive action on metallic and non-metallic materials. STI

1063

[Cooking salt and its solutions.] Povarennaya sol' i ee rastvory. [A book]

Goncharova, M. V.; Amosova, L. E.;
Volchenko, E. G.; Ostroukhov, I. V.
100pp. (1970) [112 ref. Ru] Leningrad, USSR: 'Khimiya'. Price 0.30 rouble

The book includes characteristics of places of origin of cooking salt; methods of treatment and processing; general properties; chemical, physical and mechanical characteristics; and effect of NaCl solutions on corrosion resistance of metallic and non-metallic substances. STI

1064

The vitamins: chemistry, physiology, pathology, methods. Volume III. [Book]

Sebrell, W. H., Jr; Harris, R. S. (Editors)
2nd edition xv+601pp. ISBN 0 12 633763 2
(1971) [many ref. En] New York, USA, Academic Press Inc. Price \$29.50 [Inst. of Nutr. Sci., Columbia Univ., New York, USA]

This volume contains chapters on choline, the vitamin D group, essential fatty acids, inositols, and the vitamin K group. In each chapter the following aspects are covered: nomenclature and formulas;

chemistry; industrial preparation; estimation in foods and food supplements; occurrence in foods; standardization of activity; biogenesis; active compounds; antagonists; biochemical systems; deficiency effects in man and animals; specificity of action; chemical pathology and pharmacology; and requirements of microbes, animals and man. [See FSTA (1970) 2 2A69 for volume II.] JA

1065

The vitamins: chemistry, physiology, pathology, methods. Volume V. [Book]

Sebrell, W. H., Jr.; Harris, R. S. (Editors)
2nd edition xviii + 468pp. ISBN 0 12 633765 9
(1972) [many ref. En] New York, USA,
Academic Press Inc. Price \$29.00 [Inst. of Nutr.
Sci., Columbia Univ., New York, USA]

This volume contains chapters on riboflavin, thiamin, tocopherols, and new and unidentified growth factors. The following aspects of riboflavin, thiamin and tocopherols are covered: nomenclature and formulas; chemistry; industrial preparation; estimation in foods and food supplement; occurrence in foods; standardization of activity; biogenesis; active compounds; synergists and antagonists; biochemical systems; deficiency effects in man and animals; pharmacology and toxicology; and requirements of microbes, animals and man. The chapter on growth factors discusses: lipoic acid (thioctic acid); peptides in metabolism and nutrition; carnitine; ubiquinone (coenzyme Q); lyxoflavin; coenzyme III; factors required in unheated growth media; guinea pig antistiffness factor; and unidentified factors. [See preceding abstr. for volume III.] JA

1066

[Sorbic acid - chemistry, biochemistry, microbiology, technology. Vol. I. Properties, analysis, synthesis.] Sorbinsäure - Chemie, Biochemie, Mikrobiologie, Technologie. Band I. Eigenschaften, Analytik, Herstellung. [Book]
Lück, E.

128pp. (1969) [788 ref. De] B. Behr's Verlag, Hamburg 76, Federal Republic of Germany. Price 22.50 DM [Farbwerke Hoechst AG, Frankfurt am Main 80, Federal Republic of Germany]

The book is a comprehensive monograph about the food preservative sorbic acid, its salts, and its derivatives. Volume 1 contains 3 sections: Physical and chemical properties, including detailed tables and diagrams on solubilities and data on chemical reactivity (pp. 10-56, 398 ref.). Qualitative and quantitative analysis, purity criteria and specifications (pp. 57-108, 279 ref.); and Synthesis and industrial production (pp. 109-123, 111 ref.). Patent literature is well integrated. EL

1067

[Sorbic acid - chemistry, biochemistry, microbiology, technology. Vol. II. Biochemistry, microbiology.] Sorbinsäure - Chemie, Biochemie,

Mikrobiologie, Technologie. Band II. Biochemie, Mikrobiologie. [Book]

Lück, E.

127pp. (1972) [594 ref. De] B. Behr's Verlag, Hamburg 76, Federal Republic of Germany. Price 19 DM [Farbwerke Hoechst AG, Frankfurt am Main 80, Federal Republic of Germany]

This second volume is concerned with the biological aspects of sorbic acid. A short introduction deals with the occurrence of sorbic acid and its derivatives, mainly parasorbic acid, in plants, animals and microorganisms. The 2 main chapters cover the toxicological aspects (pp. 13-31, 125 ref.) and the antimicrobial activity (pp. 32-124, 436 ref.). The toxicology section contains details about the feeding test, metabolism, and the dermatological properties. The chapter on antimicrobial activity is concerned with the influence of sorbic acid on enzymes, the antimicrobial spectrum, its activity against bacteria, algae, yeasts and moulds, influence of substrate factors, efficacy of combinations with other preservatives, metabolism of sorbic acid by microorganisms and antimicrobial activity of sorbic acid salts, esters, anhydrides, and other derivatives. Its activity against 140 bacteria and 260 fungi is given in tabular form. EL

1068

[Sorbic acid - chemistry, biochemistry, microbiology, technology. Vol. III. Technology.] Sorbinsäure - Chemie, Biochemie, Mikrobiologie, Technologie. Band III. Technologie. [Book]
Lück, E.

150pp. (1970) [1086 ref. De] B. Behr's Verlag, Hamburg 76, Federal Republic of Germany. Price 26.50 DM [Farbwerke Hoechst AG, Frankfurt am Main 80, Federal Republic of Germany]

In volume III the applications of sorbic acid, its salts, and its derivatives are reviewed in 15 sections, mainly the use as a food preservative. The following fields are covered: fats and fat products, cheese and other dairy preparations, other foodstuffs of animal origin, fish, meat and eggs, fruit products, vegetables, including pickles, non-alcoholic beverages, beer and wine, bakery goods and flour confectionery, sweets, fungistatic packaging materials, pharmaceutical and cosmetic products, feedstuffs and miscellaneous applications as preservative, antimicrobial, medical and pesticidal agent. EL

1069

Cyclamate sweeteners in the human diet. [A book]
Goodhart, R. S. (Editor)
58pp. (1968) [Numerous ref. En] North Chicago, Illinois: Abbott Laboratories [Calorie Control Council, 25 East Chestnut St., Chicago, Illinois, USA]

This book compiled by the Scientific Director of the Calorie Control Council, presents a scientific evaluation of the use of cyclamate sweeteners in

foodstuffs. It contains 4 articles: 'Noncaloric sweetening agents', by M. E. Rubini [reprint *Am. J. clin. Nutr.* (1968) 21 (6) 644-45]; 'A case for the safety of cyclamate and cyclamate-saccharin combinations', by G. M. Berryman, G. R. Hazel, J. D. Taylor, P. G. Saunders & M. S. Weinberg [reprint *Am. J. clin. Nutr.* (1968) 21 (6) 688-92]; 'Cyclamate consumption study', by D. H. Philip [released by the Calorie Control Council]; 'Toxicological studies with sodium cyclamate and saccharin', by J. D. Taylor, R. K. Richards & R. G. Wiggand [reprint from *Fd Cosmet. Toxicol.* (1968) 6 (3) 313-27]. VJG

1070

[Cyclamates - new non-caloric sweetening agents.] Vavrikova, J.; Mareckova, O.

Ceskoslovenska Gastroenterologie a Vyziva 22 (7) 486-89 (1968) [22 ref. Cs, en, ru] [Ustav Pro Vyzkum Vyzivy Lidu, Prague, Czechoslovakia]

The development of cyclamates in the USA and elsewhere is reviewed, and their significance as a substitute for sugar assessed. They are harmful when used regularly over a number of yr. The authors' own clinical observations are given, according to which people suffering from diabetes prefer cyclamates to saccharin. Changes may occur in food processing which affect the sweetening capacity of cyclamates. Further research is required on the max. permissible dose, if used permanently, as well as the thermal stability of cyclamates in food. STI

LEGISLATION

1071

Bell and O'Keefe's Sale of Food and Drugs. [A book]

O'Keefe, J. A.

liv + 1584pp. (1968) [Numerous ref. En] London: Butterworth & Co. (Publishers) Ltd.; Shaw & Sons, Ltd. Price 230s

This 14th edition deals with the administration of United Kingdom statutes, regulations and orders. The book has 6 parts: 'Food and drugs', (pp. 19-894); 'Grading and marking of food', (H 946); 'Slaughter of animals', (pp. 947-1060); 'Pharmacy and medicines', (pp. 1061-74); 'Emergency legislation', (pp. 1075-108); and 'Miscellaneous (Customs and Excise Act 1952)', (pp. 1109-26). There are 3 appendices: 'Official publications', (pp. 1127-410); 'Composition and labelling of food and drugs', (pp. 1411-76); 'Specimen forms of information and form of certificate of authorization', (pp. 1477-82). There are 4 addenda: 'Labelling of food regulations 1967', (pp. 1483-513); 'Coffee and coffee product regulations 1967', (pp. 1514-20); 'Ice-cream regulations 1967', (pp. 1521-27); and 'Margarine regulations 1967', (pp. 1528-35). There is a good, detailed subject index. JN

1072

[Holthöfer-Juckenack-Nüse's German food legislation. Vol. I. Food Laws.] Holthöfer-Juckenack-Nüse *Deutsches Lebensmittelrecht*. Band I. Lebensmittelgesetz. [A book]

Nüse, K.-H.; Franck, R.

4th edition xxiii + 1097pp. (1961) [De] Berlin, Cologne, Munich & Bonn: Carl Heymanns Verlag KG Price DM 125

The 6 vol. which make up this full, up-to-date and authoritative compilation on German Food Legislation may be divided into 3 broad categories: general (vol. I), individual foods (vol. II-IV) and amendments and additions (vol. V and VI). Most vol. contain a list of abbreviations used and an index. Vol. I comprises an introduction defining the scope of the Food Laws and a historical outline of their development, and further chapters as follows: abbreviations used, text of current Food Laws, explanations of individual paragraphs in the Food Laws (e.g. terminology, definitions, prohibitions, penalties), the Food Law of 21.12.1958, regulations for implementing the Food Laws, miscellaneous legal matter of importance to food legislation and the food trade, list of pertinent legal decisions, and an index. HBr

1073

[Holthöfer-Juckenack-Nüse's German food legislation. Vol. II. Food legislation applicable in connection with the Food Laws.]

Holthöfer-Juckenack-Nüse *Deutsches Lebensmittelrecht*. Band II. Neben dem Lebensmittelgesetz geltendes Lebensmittelrecht. [A book]

Nüse, K.-H.; Franck, R.

4th edition xxiv + 1042pp. (1963) [De] Berlin, Cologne, Munich & Bonn: Carl Heymanns Verlag KG Price DM 159

The foods and ancillary products covered in vol. II are as follows: butter; essences, aromatic substances and similar products; food colouring; meat and meat products (including sausages, stock cubes and prepared dishes, such as Russian salad); natural and synthetic honey; cheese (including casein, cheese with ham, quarg, goats' milk products, dietary cheese, Zn moulds and cheese spread packages); preservatives; margarine and other fatty products (including refined vegetable oil, edible oils and margarine with egg); and milk and dairy products (including carbonated milk beverages and fruit flavoured milks, condensed skim-milk, yoghurt and kefir made from skim-milk, vitamin-enriched sterilized, standardized milk, human milk banks, and supervision of heat-treatment equipment in dairies). Other chapters cover the general ordinance on foreign substances in foods and food descriptions, while an appendix gives the law of 30.11.1962 governing commerce in food in E. Germany. HBr

1074

[Holthöfer-Juckenack-Nüse's German food legislation, Vol. III. Food legislation

applicable in connection with the Food Laws.]

Holthöfer-Juckenack-Nüse Deutsches Lebensmittelrecht. Band III. Neben dem Lebensmittelgesetz geltendes Lebensmittelrecht. [A book]

Nüse, K.-H.; Franck, R.

4th edition xxxi + 1007pp. (1966) [De] Berlin, Cologne, Munich & Bonn: Carl Heymanns Verlag KG Price DM 196

The following foods and ancillary products or processes are covered in vol. III: absinthe; non-alcoholic beverages (including those containing caffeine and quinine); drugs; bakery products and bread (including baking additives and baking powder); articles of utility (including the full range of plastics materials); irradiation of foods; beer; items containing Pb and Zn (including Zn-plated vessels, rubber seals for preserving jars, and bottle caps); brandy; dietetic foods (including advertising and competition); eggs (including salmonella infections); synthetic foods; vinegar and acetic acid (including wines for vinegar manufacture); fish, crustacea and their products (including fish protein, fish sausage, colouring, roes, non-sterile fish pastes); fruit processing (including addition of foreign substances); feedstuffs; vegetables (including quality standards, sauerkraut in plastics containers, horse-radish, salted vegetables, and dried peas); and grain products (including retail packages, ready-for-use flours, and chemically treated grain products). 2 chapters are included on legislation covering restaurants (including railway buffets and protection of minors) and beverage dispensers. HBr

1075

[Holthöfer-Juckenack-Nüse's German food legislation. Vol. IV. Food legislation applicable in connection with the Food Laws.]

Holthöfer-Juckenack-Nüse Deutsches Lebensmittelrecht. Band IV. Neben dem Lebensmittelgesetz geltendes Lebensmittelrecht. [A book]

Nüse, K.-H.; Franck, R.

4th edition xxvii + 949pp. (1966) [De] Berlin, Cologne Munich & Bonn: Carl Heymanns Verlag KG Price DM 182

The following foods and ancillary products or processes are covered in vol. IV: natural and synthetic spices; poisonous substances; coffee; coffee substitutes and additives; cocoa and cocoa products (including chocolate and cocoa residues); potatoes and potato products (including dried potatoes, starch and blancmange-type products); chewing gum; mineral oils; fruit and fruit products (including quality standards for processed fruit, jams in hermetically sealed containers, concentrated juices, fruit pulps, syrups); oil seeds and fillings and confectionery made from them; petroleum; edible fungi; soya products; ice cream (including use of milk-based egg substitute and fish protein); table salt; sweeteners; confectionery; tobacco; table waters (including definitions for use by spas etc.); tea and similar products; dough products (including protein additives and coloured doughs); deep-frozen foods; treatment of drinking water

(including ion exchange methods and plastics pipelines); wine and wine products (including use of raisins for artificial wines, non-alcoholic beverages from wine lees, vinegar from yeast pressings, vermouth and aromatized wines and foreign wines); cellulose esters; and sugar (including syrup). A chapter is included on food poisoning. HBr

1076

[Holthöfer-Juckenack-Nüse's German food legislation. Vol. V & VI. Amendments and supplements to vol. I-IV as of 1.1.1968, Parts 1 & 2.] Holthöfer-Juckenack-Nüse Deutsches Lebensmittelrecht. Band V. & VI. Änderungen und Ergänzungen zu Band I-IV nach dem Stand vom 1.1.1968, Teil 1 & 2. [A book]

Nüse, K.-H.; Franck, R.

4th edition xxiv + iv + 1247pp. (1968) [De] Berlin, Cologne, Munich & Bonn: Carl Heymanns Verlag KG Price DM 396

These 2 supplementary vol., which have running pagination, contain amendments and supplements to the basic food laws given in the earlier vol., bringing the work up-to-date to 1 Jan., 1968. Vol. VI contains a 276-page index to the subject matter dealt with in the previous 5 vol. HBr

1077

Food and the law. A symposium. [A book]

Joseph, R. L. (Editor)

62pp. (1971) [20 ref. En] Dublin, R. of Ireland: An Forais Taluntais. Price £2.50

These proceedings of a symposium, Food and the law, held in Dublin in April, 1970, contain information of value to food legislators, manufacturers and consumers. They comprise the following papers: General principles of law, by L. Hamilton (pp. 3-7); Food legislation in Britain, by L. G. Hanson (pp. 8-16, 9 ref.); Food legislation in the European Economic Community, by E. Gaerner (pp. 17-22); Domestic and international food legislation: an American view, by H. P. Binger (pp. 23-28, 6 ref.); Food legislation in Sweden, by G. Brännland (pp. 29-34); Consumer protection and food law in Japan, by J. Sasaki (pp. 35-40, 2 ref.); Food law and the international company, by J. Brett & V. Staniforth (pp. 41-48, 2 ref.); Food standards for the world: the Codex Alimentarius, by G. Kermode (pp. 49-62, 1 ref.). AL

1078

[Food legislation. Federal laws and ordinances on foods and items of utility.] Lebensmittelrecht.

Bundesgesetze und -verordnungen über Lebensmittel und Bedarfsgegenstände. [Book]

Zipfel, W. (Editor)

157pp. (1971) [De] Munich, Federal Republic of Germany, Verlag C. H. Beck

This 3rd supplement to the 6th edition of Beck's loose-leaf collection of food legislation in the

Federal Republic of Germany brings it up to date as of Jan. 1, 1971. [See also FSTA (1972) 4 8U567.] HBr

1079

[Food laws. Collected texts. Supplement, January 1971.] Lebensmittelrecht. Textsammlung. Ergänzungslieferung Stand Januar 1971. [A book] Zipfel, W. (Editor) 309pp. ISBN 3 406 019250 (1971) [De] Munich, W. Germany: Verlag C. H. Beck

This booklet, the third supplement to the 6th Edition, contains supplements and amendments to the W. German Food Laws, which are thereby updated to Jan. 1971. The contents cover general regulations, regulations for individual foods, tobacco and household goods, and related regulations. An 11-pp. subject index is included. HBr

1080

[Food legislation. Federal laws and ordinances on foods and items of utility.] Lebensmittelrecht. Bundesgesetze und -verordnungen über Lebensmittel und Bedarfsgegenstände. [Book] Zipfel, W. (Editor) 186pp. (1972) [De]

This 5th supplement to the 6th edition (or 2nd supplement to the 7th edition) of Beck's collection of Federal German food legislation brings it up to date as of Oct. 1972. HBr

1081

[Wine laws. Commentary.] Weinrecht Kommentar. [Book] Zipfel, W.

viii + 501pp. ISBN 3 406 01941 2 (1972) [De] München, Federal Republic of Germany, C. H. Beck'sche Verlagsbuchhandlung. Price DM 65.-

This work is taken from the author's publication Lebensmittelrecht (Food Legislation) and comprises a comprehensive interpretation of the New Wine Laws, which came into force in the Federal Republic of Germany in 1971, and related legislation. In addition, the law on contravention of the EEC regulations on wine is also quoted. A feature of the book is the inclusion of the 'background' to or official substantiation of the individual regulations. A 17-pp. subject index is included. HBr

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FOOD SCIENCE AND TECHNOLOGY BOOKS

May, 1975

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INTRODUCTION

Food Annotated Bibliographies (FABs) are collections of abstracts on specific topics in food science and technology. The topics are chosen by the staff of the International Food Information Service as being of particular interest or importance. The topics normally interest individual workers, who may not require the full information provided in Food Science and Technology Abstracts, from which the abstracts for the FABs are taken. The size and the cost of the FABs are controlled as much as possible with the interests of individual workers in mind.

Titles of the FABs now available are given on the back cover of this booklet. New titles are being added at the rate of about 10-20 per year. For up-to-date lists of FABs or suggestions for new topics please write to the address given on the back cover. New subjects are searched for at least the five most recent volumes of Food Science and Technology Abstracts. Thereafter each FAB is updated monthly. Copies of each month's abstracts on any topic may be obtained as indicated on the back cover of this publication. At the end of each volume of up-dating, the abstracts are merged and made available as a separate supplement to the original FAB.

Some of the larger FABs have been divided into sections to facilitate use. Abstracts are not printed in more than one section. The larger FABs also have subject indexes provided.

Copies of all original articles referred to in the abstracts may be bought (or occasionally borrowed) from the International Food Information Service.

Coverage of the subject has been restricted to that of Food Science and Technology Abstracts, which covers over 1200 of the important food journals, patents from 20 countries and books published world-wide. Every effort is made to include all significant references, but editorial discretion is used on the many articles of borderline interest. If the reader particularly needs an exhaustive search of the subject, we will be pleased to provide any other references that we have available. We would in any case encourage readers to write or telephone us with any comments or queries they may have.

J. NEWTON
ASSISTANT EDITOR

ABBREVIATIONS

**These entries are used in addresses only*

A	ampere	*Div.	Division	*Int.	International
abstr.	abstract	DM	dry matter, Deutsche Mark	IR	infrared
*Acad.	Academy etc.	DNA	deoxyribonucleic acid(s)	IU	international unit
Akad.	Ad libitum	DSA	Dairy Science Abstracts	J	joule
ad lib.	Agriculture, Agricul- tural etc.	E.	East, Eastern etc.	Jan.	January
*Agric.	Artificial	EEC	European Economic Community	k-	kilo- (as in kcal. kg)
AI	insemination	e. g.	for example	kgf	kilogram-force
a. m.	ante meridiem	Eh	Oxidation-reduction potential	*Ltd.	Limited
Anon.	Anonymous	*Eng.	Engineering etc.	l.	litre
AOAC	Association of Official Analytical Chemists	*Expt.	Experiment etc.	*Lab.	Laboratory
approx.	approximately	f	femto-(10 ⁻¹⁵ , as in fCi)	lb	pound
*Assoc.	Association	°F	degree Fahrenheit	lbf	pound-force
atm.	atmosphere	*Fac. Fak.	Faculty etc.	m	metre
Aug.	August	FAO	Food and Agricul- tural Organization	m-	milli- (as in mg, ml, mm)
*Bact.	Bacteriology	FDA	Food and Drug Administration	m-equiv.	milli-equivalent
*Biochem.	Biochemistry	Feb.	February	M	molar concentration
*Biol.	Biology	*Fed.	Federal, Federation etc.	M-	Mega- (as in Mrad)
BOD	biological oxygen demand	fl oz	fluid ounce	max.	maximum
bp	boiling point	fp	freezing point	*Med.	Medicine etc.
Btu	British thermal unit	FSTA	Food Science and Technology Abstracts	*Micro- biol.	Microbiology
c-	centi- (as in cm, cm ² , cm ³)	ft	foot, feet	min	minute (time)
°C	degree Celsius (Centigrade)	g	gram	min.	minimum
cal	calorie	g	gravity	Min.	Ministry
cd	candela	gal	gallon	mol	mole
*Chem.	Chemistry	GLC	gas-liquid chromato- graphy	mol. wt.	molecular weight
Ci	curie	*Govt.	Government	mp	melting point
CMT	California mastitis test	h	hour	MPN	Most Probable Number
COD	chemical oxygen demand	ha	hectare	MS	mass-spectrometry
coeff.	coefficient	hl	hectolitre (100 l.)	n-	nano- (10 ⁻⁹ , as in nm)
*Coll.	College	hp	horse power	N	Newton (kg m/sec ²)
*Co.	Company	HTST	high temperature short time	N.	North, Northern etc.
conc.	concentrated	Hz	hertz (frequency/sec)	N	normal concentration
concn.	concentration	i. e.	that is	*Nat.	National
*Corp.	Corporation	in	inch	*Nauchno- issled.	Nauchno-Issledo- vatel'skogo etc.
CSIRO	Commonwealth Scientific and Industrial Research Organization	*Inc.	Incorporated	*NSW	New South Wales
cwt	hundredweight	*Ind.	Industry etc.	NMR	Nuclear magnetic resonance
Dec.	December	*Inst.	Institute etc.	Nov.	November
*Dept.	Department			*Nutr.	Nutrition etc.
detn.	determination			Oct.	October
DHIA	Dairy Herd Improve- ment Association			oz	ounce
diam.	diameter			p-	pico- (10 ⁻¹² , as in pCi)
dil.	dilute			P	Poise
				Pathol.	Pathology

*Physiol.	Physiology etc.	SNF	solids-not-fat	V	volt
p.m.	post meridiem	sp., spp.	species	var.	variety
ppm	parts per million	sp. gr.	specific gravity	*Vet.	Veterinary
PVC	polyvinyl chloride	*St.	State etc.	vol.	volume
PVDC	polyvinylidene chloride	*Sta.	Station etc.	*Vses.	Vsesoyuznyi etc.
		summ.	Summary	v/v	volume/volume
				vs.	versus
qt	quart	t	metric tonne (1000 kg)	W	watt
r	röntgen	TDN	total digestible nutrients	W.	West, Western etc.
rad	rad or radian	*Tech.	Technical, Technology etc.	WHO	World Health Organization
ref.	reference(s)	temp.	temperature	w/v	weight/volume
*Res.	Research	TLC	thin layer chromatography	wk	week
rev/min	revolutions per minute	TS	total solids	wt.	weight
RH	relative humidity	UHT	ultra-high temperature	yd	yard
RNA	ribonucleic acid(s)	UK	United Kingdom	yr	year
		*Univ.	University etc.	μ-	micro- (as in μg, μm)
S.	South, Southern etc.	USA	United States of America	%	per centum
*Sci.	Science, Scientific etc.	USDA	United States Department of Agriculture	>	greater than
SD	Standard deviation	USSR	Union of Soviet Socialist Republics	≥	greater than or equal to; not less than
SE	starch equivalent	*Util.	Utilization	<	less than
SEM	standard error of the mean	UV	ultraviolet	≤	less than or equal to; not greater than
s	second (time)				
*Sel'-skokhoz.	Sel'skokhozyaistvennoi etc.				
Sept.	September				

Chemical symbols are used for all elements.

ABBREVIATIONS FOR LANGUAGES

	<i>Language of text</i>	<i>Language of summaries</i>		<i>Language of text</i>	<i>Language of summaries</i>
Afrikaans	Af	af	Interlingua	Ia	ia
Albanian	Al	al	Italian	It	it
Arabic	Ar	ar	Japanese	Ja	ja
Armenian	Am	am	Kazakh	Ka	ka
Azerbaidzhan	Az	az	Korean	Ko	ko
Belorussian	Be	be	Latvian	Lv	lv
Bulgarian	Bg	bg	Lithuanian	Li	li
Chinese	Ch	ch	Macedonian	Ma	ma
Czech	Cs	cs	Malay	My	my
Danish	Da	da	Norwegian	No	no
Dutch	Nl	nl	Polish	Pl	pl
English	En	en	Portuguese	Pt	pt
Estonian	Ee	ee	Roumanian	Ro	ro
Finnish	Fi	fi	Russian	Ru	ru
French	Fr	fr	Serbo-croat	Sh	sh
Georgian	Ge	ge	Sinhali	Si	si
German	De	de	Slovak	Sk	sk
Greek	Gr	gr	Slovenian	Sn	sn
Hebrew	He	he	Spanish	Es	es
Hungarian	Hu	hu	Swedish	Sv	sv
Indonesian	In	in	Turkish	Tr	tr
			Ukrainian	Uk	uk

May, 1975.

ABSTRACTS

DICTIONARIES, DIRECTORIES

1

[**Dictionary of names of freshwater fishes of the USSR.**] Slovar' nazvanii presnovodnykh ryb SSSR. [Book]

Lindberg, G. U.; Gerd, A. S.

324pp. (1972) [Ru] Leningrad, USSR, Izdatel'stvo Nauka, Leningradskoe Opredelenie. Price 1.31 r

This dictionary contains 9000 terms referring to 667 freshwater fish types, in different languages used in the USSR and in European languages. It includes terms used in common language as well as archaic terms and special literary and scientific terms. STI

2

[**Dairy Industries Catalog 1973-74.**] [Book]

Anon.

268pp. Edition 46 (1974) [En] New York, USA, Magazines for Industry, Inc.

This catalogue on the dairy industry in the USA is divided into 2 sections. The first one (pp. 8-112) gives dairy statistics and data on marketing and packaging and on the construction of dairies, covering liquid milk, cheese, butter, frozen desserts, packaging, new plant construction and environmental aspects of dairy processing, and concludes with commonly used technical charts and tables. The second section, Buyer's guide (pp. 113-254), lists the suppliers to the industry alphabetically as well as by product classification, and gives addresses of dairy associations and colleges. An appendix (pp. 255-267) gives Federal and State standards for a large number of milk products. FL

3

[**International dictionary of food and cooking.**

[Book]

Martin, R.

311pp. ISBN 0 09 457960 1 (1973) [En] London, UK; Constable & Co. Ltd. Price £3.95

This book is designed, as the introduction states, not so much for the food specialist as for those who are new to cooking, for compulsive cookery book readers, for the amateur philologist and for the crossword enthusiast. Nevertheless, in spite of this modest disclaimer, the book is a very useful source of information on many aspects of food, and well illustrates the international nature of the subject. One feature is the differentiation between words of English (or American) origin and those from other languages by the use of italics. Both the serious

user and the casual browser will find much of interest. HBr

4

[**Food and menu dictionary.**] [Book]

Dahl, C.

iii + 135pp. ISBN 0 8436 0556 1 (1972) [En] Boston, Massachusetts, USA; Cahners Publishing Co., Inc. Price \$8.50

Over 2000 terms or ingredients used in the food service industry are defined and explained. This is an extensively revised edition of a book first published in 1938. JN

GENERAL

5

[**Food fundamentals.**] [Book]

McWilliams, M.

2nd edition 592pp. ISBN 0 471 58736 2 (1974) [En] New York, USA; John Wiley & Sons, Inc. Price £6.00 [St. Univ., Los Angeles, California, USA]

This book is intended to assist students to develop their ability to prepare and evaluate nourishing and satisfying foods. The new edition has been extensively revised to provide a broader base of information on food buying. The sections on fish and poultry have been expanded and the discussion of crystallization has been broadened to include frozen foods. The book is divided into 3 parts: Food preparation; Food management; and Food science. Chapters included are: Food preparation today (pp. 1-6, 2 ref.); Important factors in food preparation (pp. 7-20, 9 ref.); Beverages (pp. 23-50, 15 ref.); Vegetables (pp. 51-95, 27 ref.); Fruits (pp. 96-123, 23 ref.); Salads and salad dressings (pp. 124-144, 13 ref.); Cereals and starch cookery (pp. 145-174, 18 ref.); Milk and cheese (pp. 175-202, 16 ref.); Meats, fish, and poultry (pp. 203-265, 36 ref.); Eggs (pp. 266-294, 11 ref.); Leavening agents (pp. 295-308, 22 ref.); Baked products (pp. 309-354, 24 ref.); Crystallization: sugar cookery and frozen desserts (pp. 355-375, 6 ref.); Food preservation (pp. 379-399, 20 ref.); Food sanitation problems (pp. 400-416, 27 ref.); meal management (pp. 417-448, 7 ref.) VJG

6

[**Food fundamentals.**] [Book]

McWilliams, M.

2nd edition 592pp. ISBN 0 471 58736 2 (1974) [En] New York, USA; John Wiley & Sons, Inc. Price £6.00 [St. Univ., Los Angeles, California,

USA]

(Continued from preceding abstr.) Colloids (pp. 451-458, 5 ref.); Carbohydrates (pp. 459-471, 21 ref.); Fats (pp. 472-489, 17 ref.); and Proteins (pp. 490-501, 20 ref.). The following appendices are included: Nutritive values of the edible part of foods; Consumer buying guides; Suggested sources of educational materials about food; Pigment structures; and Commonly used names for retail meat cuts and recommended standardized names. VJG

7

[**Handbook on food commodities.**] Tovarovedenie prodovol'stvennykh tovarov. [Book]

Anon.

439pp. (1972) [12 ref. Ru] Moscow, USSR, Izdatel'stvo Ekonomika. Price 1.28 r

This is a general textbook on the chemical composition of food products, their classification and standardization. A special section deals with food microbiology. The book includes the following chapters: General knowledge (pp. 4-45); Principles of microbiology (pp. 45-85); Cereal products and bakery goods (pp. 85-133); Vegetables, fruit and mushrooms (pp. 133-196); Special food products, e.g. tea and coffee, condiments, beverages (pp. 196-237); Starch and processed starch products, sugar, honey and confectionery items (pp. 237-283); Edible fats (pp. 283-306); Milk and milk products (pp. 306-339); Meat and meat products (pp. 342-392); Eggs and egg products (pp. 392-399); Fish and fish products (pp. 399-435). STI

8

Food. [Book]

Anon.

268pp. ISBN 0 7167 0875 2 (paperback) (1973) [many ref. En] San Francisco, USA, W. H. Freeman & Co. Price US \$11.00 (cloth); \$5.50 (paper)

This series of articles which have appeared in *Scientific American* covers the period 1950-1972, and is divided into 3 sections: Nutrition and malnutrition (pp. 1-86); Conventional sources and resources (pp. 87-179); and The future: feast or famine? (pp. 181-258). Articles in the first section are: Smell and taste, by A. J. Haagen-Smit; The sources of muscular energy, by R. Margaria; Appetite and obesity, by J. Maywe; Proteins, by J. S. Fruton; Lactose and lactase, by N. Kretchmer; The physiology of starvation, by V. R. Young & N. S. Scrimshaw; Kwashiorkor, by H. C. Trowell; Biotin, by J. D. Woodward; Endemic goiter, by R. B. Gillie; Toxic substances and ecological cycles, by G. M. Woodwell; and Mercury in the environment, by L. J. Goldwater. Articles in the second section are: Wheat, by P. C. Mangelsdorf; Hybrid corn, by P. C. Mangelsdorf; Milk, by S. Patton; Cattle, by R. W. Phillips; Poultry production, by W. O. Wilson; The food resources of the ocean, by S. J. Holt; Food additives, by G. O. Kermode; Beer, by A. H. Rose; and Wine, by M. A. Amerine. Articles in the third section are: The human population, by E. S. Deevey, Jr.; Food, by N. S. Scrimshaw; Human food production as a process in the

biosphere, by L. R. Brown; A world agricultural plan, by A. H. Boerma; Orthodox and unorthodox methods of meeting world food needs, by N. W. Pirie; Marine farming, by G. B. Pinchot; High-lysine corn, by R. D. Harpstead; and Protein from petroleum, by A. Champagnat. A short bibliography is given for each article. AJDW

9

Food science. [Book]

Potter, N. N.

2nd edition xiv + 706pp. ISBN 0 87055 140 X (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$15 (USA), \$16 (Foreign) [Dept. of Food Sci., Cornell Univ., Ithaca, New York, USA]

This 2nd edition, which largely retains the format of the first edition published in 1968 [see FSTA (1969) 1 3G95], has been updated and expanded. Many sections have been added or modified to bring in new subject material and a new chapter on improving nutritional quality and nutritional labelling has been added. Additions have generally been kept short so as not to exceed a book length appropriate to a single volume. Chapters are: Introduction: defining food science (pp. 1-14, 28 ref.); Magnitude, division, and interdependent activities of the food industry (pp. 15-35, 24 ref.); Constituents of foods: properties and significance (pp. 36-58, 31 ref.); Nutritive aspects of food constituents (pp. 59-80, 28 ref.); Unit operations of the food industry (pp. 81-104, 16 ref.); Quality factors and how they are measured (pp. 105-130, 24 ref.); Deteriorative factors and their control (pp. 131-155, 31 ref.); Heat preservation and processing (pp. 156-186, 31 ref.); Cold preservation and processing (pp. 187-237, 35 ref.); Food dehydration and concentration (pp. 238-297, 42 ref.); Food irradiation and microwave heating (pp. 298-328, 27 ref.); Food fermentations (pp. 329-345, 25 ref.); Milk and milk products (pp. 346-390, 29 ref.); Meat, poultry, and eggs (pp. 391-423, 44 ref.); Seafoods (pp. 424-439, 27 ref.); Fats, oils, and their products (pp. 440-462, 27 ref.); Cereal grains and their processing (pp. 463-487, 27 ref.);

10

Food science. [Book]

Potter, N. N.

2nd edition xiv + 706pp. ISBN 0 87055 140 X (1973) [many ref. En]

[Continued from preceding abstr.] Vegetables, fruits and juices (pp. 488-517, 31 ref.); Beverages (pp. 518-550, 45 ref.); Confectionery and chocolate products (pp. 551-566, 21 ref.); Food packaging (pp. 567-602, 37 ref.); Water and waste (pp. 603-621, 38 ref.); Food additives, wholesomeness, and consumer protection (pp. 622-651, 34 ref.); Improving nutritional quality: nutritional labeling (pp. 652-665, 19 ref.); and World food needs (pp. 666-687, 27 ref.). JA

11

The story of food. [Book]

Garard, I. D.

vii+240pp. ISBN 0 87055 155 8 (1974) [73 ref. En] Westport, Connecticut, USA; AVI Publishing Co., Inc. Price \$9.00 (USA) \$10.00 (Foreign) [Rutgers, St. Univ., New Brunswick, New Jersey, USA]

This book is intended primarily for students and teachers of nutrition and dietetics and others concerned with human feeding problems. It is written with min. technicalities for readers having a limited scientific background and is concerned mainly with practical conditions in the USA, although basic data are drawn from world-wide sources. The book is divided into 6 major sections dealing with the historical development of food sources and methods of preservation; modern legal regulations and standards; the functions of food and the digestive processes; essentials of nutrition; the vitamins; and future world problems of ensuring adequate world food supplies. The book is attractively written, and contains an appendix giving a table of dietary allowances, an index and a bibliography. ELC

12

Food for thought. [Book]

Labuza, T. P.

xii+179pp. ISBN 0 87055 158 2 (1974) [29 ref. En] Westport, Connecticut, USA; AVI Publishing Co. Inc. Price \$5 (US) \$6 (Foreign) [Dept. of Food Sci. & Nutr., Univ., Minnesota, USA]

The objective of this book is well expressed in its sub-title of 'fact - not fad'. It is written with a minimum of technical terms to increase popular understanding of food values, nutrition and the reasons for food processing, to combat the widespread lack (in the USA) of real knowledge and understanding of nutrition, and the proliferation of 'fad' diets sponsored by persons with sketchy knowledge of food science or nutrition. The contents, presented in simple language but supported by accurate scientific data, include: basic principles of nutrition, chemical constituents of food, the vitamins, digestion, microbiological aspects, food preservation by canning, refrigeration, dehydration and chemical agents, food-borne diseases, additives, food legislation (in the USA), fat and heart disease, obesity and wt. control and organic and natural food. The book contains 23 chapters, a glossary of unavoidable technical terms, a bibliography and an index. ELC

13

Food and the consumer. [Book]

Kramer, A.

viii+256pp. ISBN 0 87055 148 5 (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$6.50 (USA), \$7.50 [Foreign] [Univ., College Park, Maryland, USA]

This book attempts to sort out food facts from food fancies for the general reader, and to serve as a summary of educational material for the general consumer. Introductory material is provided for the student of food science and nutrition. The subject is covered under the chapter headings: Earth finally made it (pp. 1-20); We eat to live (pp. 21-50); We

live to eat (pp. 51-85); Consumer protection (pp. 86-119); Food codes and habits (pp. 120-134); Food preservation (pp. 135-162); Convenience foods (pp. 163-185); Packaging and marketing (pp. 186-204); Waste disposal and utilization (pp. 209-229); and Food of the future (pp. 223-240). A 7pp. bibliography and a 9pp. subject index are included. JN

14

Luncheon and supper dishes. [Book]

Blair, E. C.

213pp. ISBN 0 8436 0559 6 (1973) [En] Boston, Massachusetts, USA; Cahners Books. Price \$12.50

Recipes for the large-scale production of >200 luncheon and supper entrees are detailed. They have been selected from the recipe section of the Institutions/Volume Feeding Management Magazine and are accompanied by suggestions for accompaniments and a number of photographs. The book is divided into the following sections: Soups (pp. 2-15); Cheese dishes (pp. 16-25); Vegetable entrees (pp. 26-39); Egg dishes (pp. 40-53); Pasta and rice (pp. 54-79); Sandwiches (pp. 80-103); Salads (pp. 104-125); Poultry (pp. 126-141); Fish and seafood (pp. 142-169); and Meat (pp. 170-210). The recipes should prove suitable for application in institutional catering. JA

15

Symposium on newer food processing technology. [Book]

Breeling, J. L.; Nagy, M. (Editors)

vii+269pp. (1973) [84 ref. En] Chicago, Illinois, USA; American Med. Assoc. Price \$3.00

The following papers were presented at a Symposium on Newer food processing technology, sponsored by the AMA Food Industry Liaison Committee and the Food Science Committee, Council on Food & Nutrition, American Medical Association, held at Pheasant Run, St. Charles, Illinois on 14-16 Aug., 1972: Public responsibilities on new products and processes, by V. O. Wodicka (pp. 2-11); The philosophy of acceptable risk, by W. J. Darby (pp. 12-21); A critical appraisal of aseptic canning, by K. Ito (pp. 24-34); Aseptic canning of low-acid foods in rigid metal containers, by W. Segner (pp. 35-50); High-temperature/short-time sterilization, by J. P. Bolanowski (pp. 51-62); Frozen food quality - time/temperature, by C. Byrne (pp. 65-72); Facts and fancies about sanitation and microorganism survival during dehydration, by E. Seltzer (pp. 73-82); Sanitation in newer drying techniques including thermo and bed drying, by R. L. Maurer (pp. 83-93); Continuous retorting, by J. Holme (pp. 94-105); Criteria for obtaining and maintaining biological stability in pre-processed foods, by W. Barakat (pp. 109-114); Commercial pre-processing of tomato products, by P. E. Nelson (pp. 115-125); Pre-processing of dairy products, by K. Weckel (pp. 126-134). VJG

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Symposium on newer food processing technology.

[Book]

Breeling, J. L.; Nagy, M. (Editors)
vii+269pp. (1973) [84 ref. En] Chicago, Illinois,
USA; American Med. Assoc. Price \$3.00

[Continued from preceding abstr.] Pre-processing of fruits and vegetables, by G. York (pp. 135-140); Market prepared perishable ready-to-eat foods, by J. H. Silliker (pp. 141-143); Problems of preparation, merchandising and quality control, by M. Speck (pp. 144-156); Education of food handlers, by R. S. Geister (pp. 157-165); The role of state health departments in the control of market prepared perishable ready-to-eat foods, by J. Girard (pp. 166-172); The role of the county and local health departments in the control of safety, by V. V. DeMuth (pp. 173-181); Chemical aspects of products and processes for substitute foods, by W. E. Irwin (pp. 184-192); Chemical aspects of products and processes for substitute foods, by J. Kirschmann (pp. 193-200); Nutritional implications, by R. H. Barnes (pp. 201-208); Microbiological aspects, by H. Riemann (pp. 209-220); Food microbiology laboratory standardization, by J. C. Olson, Jr. (pp. 221-229); Uniform and effective controls, by E. M. Foster (pp. 231-238). 5 task force reports (pp. 240-259) are included: Aseptic processing, by R. Frodey; Continuous processing, by R. Morse; Pre-processing, by G. York; Market prepared perishable ready-to-eat foods, by J. H. Silliker; and Products and processes for substitute foods, by G. Stewart. VJG

NUTRITION

17

A selected bibliography on East-Asian foods and nutrition arranged according to subject matter and area. [Book]

Woot-Tsuen Wu Leung; Butrum, R. R.; Flora Huang Chang (Food & Agriculture Organization, Food Policy & Nutrition Division; **United States of America**, National Institute of Arthritis, Metabolism, & Digestive Diseases; **United States of America**, Health Services & Mental Health Administration, Centre for Disease Control; **United States of America**, Department of Health, Education & Welfare)
vii+296pp. (1972) [many ref. En] Bethesda, Maryland, USA, Department of Health, Education, & Welfare

This publication is a bibliography of the references collected during the preparation of 'Food composition table for use in East Asia'. [See preceding 2 abstr.] The references are classified into 9 basic food and nutrition subjects of the region as a whole, as well as of 14 Asian areas. The food subdivisions are: General information concerning Asian foods and nutrition; Food resources; Food composition, including food analysis; Food supplement; Food technology; Food habits; Nutrition and dietary surveys; Nutritional status, including nutritional deficiency diseases; and Nutrition education. The references are arranged according to subject matter under the following areas: East Asia, Burma, Cambodia, Mainland China, Republic of China, Hong Kong,

Indonesia, Japan, Korea, Laos, Malaysia, Philippines, Singapore, Thailand and Vietnam.
VJG

18

Food composition table for use in East Asia.

[Book]

Woot-Tsuen Wu Leung; Butrum, R. R.; Flora Huang Chang (Food & Agriculture Organization, Food Policy & Nutrition Division; **United States of America**, National Institute of Arthritis, Metabolism, & Digestive Diseases; **United States of America**, Health Services & Mental Health Administration, Centre for Disease Control; **United States of America**, Department of Health, Education, & Welfare)
xiii+334pp. (1972) [many ref. En] Bethesda, Maryland, USA, Department of Health, Education & Welfare

This compilation is divided into 2 parts. The first part is entitled 'Proximate composition, mineral and vitamin contents of East Asian foods, by Woot-Tsuen Wu Leung, R. R. Butrum & Flora Huang Chang (pp. 1-187). It presents food energy (calories), moisture, protein, fat, carbohydrate, fibre, ash, Ca, P, Fe, Na, K, retinol, γ -carotene, thiamin, riboflavin, niacin, ascorbic acid contents/100 g edible portion for foods, classified into the following 14 product groups: (i) cereal and grain products; (ii) starchy roots, tubers and fruits; (iii) grain legumes and legume products; (iv) nuts and seeds; (v) vegetables and vegetable products; (vi) fruits; (vii) sugars and syrups; (viii) meat, poultry and game; (ix) eggs; (x) fish and shellfish; (xi) milk and milk products; (xii) oils and fats; (xiii) beverages; and (xiv) miscellaneous (including chocolate, condiments etc.). Appendices are included which give: Specific energy factors used for calculating the calorie values of foods consumed in East Asia; Conversion factors for wt. units used in East Asia with metric and avoir-du-pois equivalents; Index of scientific names of East Asian edible plants, fish and shellfish, and animals and insects used in the food composition table; A selected bibliography on compilation of East Asian food composition table; and A selected bibliography on East Asian botanical nomenclature.

VJG

19

Food composition table for use in East Asia.

[Book]

Rao, M. N.; Polacchi, W. (Food & Agriculture Organization, Food Policy & Nutrition Division; **United States of America**, National Institute of Arthritis, Metabolism, & Digestive Diseases; **United States of America**, Health Services & Mental Health Administration, Centre for Disease Control; **United States of America**, Department of Health, Education, & Welfare)
xiii+334pp. (1972) [many ref. En]

[Continued from preceding abstr.] The second part of the compilation is entitled, Amino acid, fatty acid, certain B vitamin and trace metal contents of some Asian foods, by M. N. Rao & W. Polacchi. It is divided into 4 sections which give the

content/100 g edible portion of: moisture, N, protein, isoleucine, leucine, lysine, methionine, cysteine, total S - amino acids, phenylalanine, tyrosine, total aromatic amino acids, threonine, tryptophan, valine, arginine, histidine, alanine, aspartic acid, glutamic acid, glycine, proline, serine, total essential amino acids, total amino acids, chemical score and limiting amino acids for foods classified into the 14 food groups listed in the previous abstr. except (xii); pyridoxine, pantothenic acid, vitamin B₁₂ and folic acid for all food groups except (vii), (xii), (xiii) and (xiv); Mg, Mn, Zn, Co, Cu, Mo, Se, F, and I contents for all groups except (vii), (xii), (xiii) and (xiv); total saturated, palmitic, stearic, total unsaturated, oleic, linoleic and linolenic acids, unsaponifiable matter and I value of the fat of plant and animal products. An index of scientific names of East Asian foods used in the food composition table; and a selected bibliography on East Asian food composition tables, are included. VJG

20

Nutritional problems in a changing world. [Book] Hollingsworth, D.; Russell, M. (Editors) xvi + 309pp. ISBN 0 85334 581 3 (1973) [many ref. En] Barking, UK, Applied Science Publishers Ltd. [British Nutrition Foundation, London, UK]

This book records the Proceedings of the British Nutrition Foundation Conference held at Churchill College, Cambridge from 29 March to 4 April, 1973. 4 plenary lectures, including one entitled The Common Market and food and nutrition in Britain, by G. A. H. Elton, are presented. The means available for practising nutritional surveillance in Britain, Czechoslovakia, USA and Canada are reviewed. Infant feeding is discussed as are foods for adults and the problems of food fortification with special consideration given to the nutritional needs of the elderly. Chapters include: Artificial feeding, especially in relation to composition of infant foods in Britain and the EEC, by E. M. Widdowson (pp. 101-113, 12 ref.); Energy foods, by D. S. Parsons (pp. 161-172, 16 ref.); Protein foods, by A. Spicer (pp. 173-181, 4 ref.); Possible changes in fat consumption in the future, by A. T. James (pp. 183-192); Carbohydrate foods - today and tomorrow, by F. Wood (pp. 193-198, 10 ref.); Non-assimilable components of food, by D. A. T. Southgate (pp. 199-204, 13 ref.); Fortification of food with iron - is it necessary or effective? by S. T. Callender (pp. 205-210, 24 ref.); The changing composition of food, by A. W. Hubbard, (pp. 239-254, 7 ref.); Health and 'health foods', by H. M. Sinclair (pp. 255-263, 27 ref.); and An industrialist's point of view, by R. J. L. Allen (pp. 265-279, 60 ref.). VJG

21

Living nutrition. [Book] Stare, F. J.; McWilliams, M. vii + 467pp. ISBN 0 471 82075 X (1972) [many ref. En] New York, USA, John Wiley & Sons Inc. Price £5.10 [Harvard Univ., Massachusetts, USA]

This book consists of 2 sections: Sociopsychological aspects of nutrition (pp. 25-239); and Nutrition from the physiological

viewpoint (pp. 241-403), each section containing several chapters, and 5 appendices. Chapters are: Introduction to nutrition (pp. 1-24, 18 ref.); Nutrition - a worldwide concern (pp. 27-53, 29 ref.); Factors in American nutrition (pp. 55-82, 34 ref.); Weight control and energy needs (pp. 85-116, 33 ref.); Health foods (pp. 119-135, 18 ref.); Pregnancy and lactation (pp. 137-162, 23 ref.); Feeding the infant (pp. 165-182, 44 ref.); The preschool child (pp. 185-197m 19 ref.); Nutrition in the school years (pp. 199-216, 18 ref.); Nutrition for adults (pp. 219-239, 29 ref.); Carbohydrates (pp. 243-259, 10 ref.); Lipids (pp. 261-275, 13 ref.); Proteins (pp. 277-298, 18 ref.); Water (pp. 301-306, 1 ref.); The ABC's of minerals (pp. 309-352, 33 ref.); and Vitamins (pp. 355-403, 32 ref.). Appendices are: Nutritive value of the edible part of foods (pp. 404-440, given in tables); Vitamin structures (pp. 441-445); Amino acid structures (pp. 446-449); Selected dietary standards (pp. 450-452); and Glossary (pp. 453-457). JA

22

[Nutritive value of vegetables and fruit.]

Pishchevaya tsennost' ovoshchei i fruktov. [Book] Beyul, E. A.; Ekisenina, N. I.; Paramonova, E. G.; Lukasik, I. S.

81 pp. (1972) [Ru] Moscow, USSR, Izdatel'stvo Pishchevaya promyshlennost'. Price 0.16 r

This book includes the following chapters: The usefulness of fruit and berries (pp. 3-16); Nutritive value of individual vegetables (pp. 16-21); Nutritive value of individual types of fruit (pp. 21-27); Fruit and vegetables in invalid nutrition (pp. 27-43); The best use of fruit and vegetables in human nutrition (pp. 43-49); Use of canned fruit and vegetables in human nutrition (pp. 49-52); Fruit and vegetable dishes (pp. 52-74); Vitamin-containing beverages (pp. 74-75); and Tables (pp. 75-80). STI

23

Modern nutrition in health and disease.

Dietotherapy. [Book]

Goodhart, R. S.; Shils, M. E. (Editors) Ed. 5, xv + 1153pp. ISBN 0 8121 0384 X (1973) [En] Philadelphia, USA; Lea & Febiger [Committee on Med. Education, New York Academy of Med., New York, USA]

This book serves both as a textbook on nutrition and as a ready reference book for students and practitioners in the fields of nutrition, medicine and public health. The various topics are grouped into sections dealing with basic nutritional science, problems in safety and adequacy of the food supply, interrelations of nutrients and metabolism, diagnosis and manifestations of nutritional deficiencies, nutrition problems during stress, and nutrition in the prevention and treatment of various diseases. An appendix contains diet standards, diets, formulas, recipes and food composition tables. DMK

24

[Research in the fields of agricultural, nutritional, forestry and timber sciences and in veterinary medicine, 1971. III. Science of nutrition.]

Forschungsvorhaben im Bereich der Landbau-, Ernährungs-, Forst- und Holzwirtschaftswissenschaften sowie der Veterinärmedizin 1971. III. Ernährungswissenschaft. [Book]

Germany, Federal Republic of, Zentralstelle für Agrardokumentation & -information iv+98pp. (Undated) [De] Bonn, Federal Republic of Germany, Bundesministerium für Ernährung, Landwirtschaft und Forsten [53 Bonn-Duisdorf Bonner Strasse, Federal Republic of Germany]

This book lists a total of 558 research projects in progress in 1971 at 96 different Federal German institutions engaged in nutritional science. It is divided into 6 main sections: physiology of nutrition, food chemistry food technology, food irradiation, quality studies, and food hygiene. A 10-pp. name index and 35-pp. subject index are appended. HBr

PROTEIN FOODS

25

World food programme and the protein problem. [Book]

Denmark, Agricultural Council 37pp. (1973) [En] Axelborg, Copenhagen

The 2 main papers and details of working group and plenary discussions at a seminar organized by The Agricultural Council at Kollekolle, Denmark on 16-17 May, 1973 are reproduced. The papers are: Proteins in world nutrition, by M. Jul (pp. 4-19); Food for health and food for work, by A. Dawson (pp. 20-29). JN

26

World protein resources. [Book]

Jones, A. vi+381pp. ISBN 0 85200104 5 (1974) [En] St Leonardgate, Lancaster, UK; Medical and Technical Publishing Co. Ltd. Price £9.00

This book is divided into 5 sections, each section containing several chapters. Sections are: Introduction to proteins (pp. 1-60); Animal proteins (pp. 61-152); Vegetable proteins (pp. 153-216); Microbial proteins (pp. 217-261); and Protein economics (pp. 263-374). Individual chapters are: General comment (pp. 3-4); Protein chemistry (pp. 5-16); Proteins in diet (pp. 17-30); Vitamins (pp. 31-34); Minerals (pp. 35-42); Allergy, addiction, preference and prejudice (pp. 43-46); Mixtures and compounds (pp. 47-49); Preservation (pp. 50-54); Canning (pp. 55-60); Meat (pp. 63-96); Birds and poultry (pp. 97-106); Dairy protein (pp. 107-118); Fish (pp. 119-152); Cereals (pp. 155-160); Fresh vegetables (pp. 161-166); Oilseeds (pp. 167-182); Pulses (pp. 183-185); Dehydrated vegetables in feed (pp. 186-196); Vegetable genetics (pp. 197-199); Monoculture (pp. 200-202); Infestation (pp. 203-208); Green leaf protein (pp. 209-216); Algae (pp. 219-222); Fungi (pp. 223-227); Yeasts (pp. 228-247); Bacteria (pp. 248-256); Oil (pp. 257-261); Variations in production, distribution and consumption (pp. 265-274); Agricultural outputs (pp. 275-279); Industrial protein (pp. 280-288);

World protein supply and demand (pp. 289-308); Speculation (pp. 309-318); Natural situations (selected countries) (pp. 319-361); and Future proteins (pp. 362-374). Numerous tables and statistical data are included. JA

27

Food protein from grains and oilseeds. A development study projected to 1980. [Book] Burrows, V. D.; Greene, A. H. M.; Korol, M. A.; Melnychyn, P.; Pearson, G. G.; Sibbald, I. R. vi+214pp. (1972) [many ref. En] Ottawa, Canada; Canadian Wheat Board

This study was undertaken to identify and assess opportunities for Canadian participation in the manufacture and marketing of food proteins from grains and oilseeds. The report is in 5 sections. Section I covers human and animal usage of plant protein (pp. 1-14). Section II, World and Canadian protein demand and supply (pp. 15-39), contains the following chapters: Human nutritional requirements and protein supply; Principal demand variables; Per capita demand for food and protein 1980; World demand and supply of basic food raw materials and protein equivalents 1980; World trade prospects 1980; and Canadian protein demand and supply 1980. Section III, Present and future trends in plant breeding and protein technology (pp. 40-130), is in 3 parts: Developments in the breeding of grains, oilseeds and pulses for protein (pp. 40-68); Plant protein technology (including wheat, coarse cereal grains, triticale, corn, soybeans, rapeseed, flaxseed, sunflower seed, peas and beans as sources of proteinaceous products, antimetabolites in plant protein preparations, and preparation, texturization, and modification of proteinaceous materials) (pp. 69-109); and Concentrated seed proteins in Japan and Australia (pp. 110-130). [Continued in following abstr.] JN

28

Food protein from grains and oilseeds. A development study projected to 1980. [Book] Burrows, V. D.; Greene, A. H. M.; Korol, M. A.; Melnychyn, P.; Pearson, G. G.; Sibbald, I. R. vi+214pp. (1972) [many ref. En]

[Continued from preceding abstr.] Section IV, Economic aspects of protein production and utilization (pp. 131-151) covers: Technological progress within an economic perspective: Potential market opportunities for concentrated seed protein 1980; Recent development in concentrated seed protein demand satisfaction; and Opportunities and implications for Canadian production of plant seed protein. Section V (pp. 152-186) deals with regulatory, sociological, technological, economic, and biological constraints on the production and usage of concentrated seed proteins. JN

29

Soybeans: improvement, production, and uses. [Book]

Caldwell, B. E.; Howell, R. W.; Judd, R. W.; Johnson, H. W. (Editors) xviii+681pp. (1973) [many ref. En] Madison, Wisconsin, USA; American Soc. of Agronomy.

Price \$14.50 [Agric. Res. Service, USDA, Beltsville, Maryland, USA]

This book which is sixteenth in the American Society of Agronomy Monograph Series, should be of great interest to soybean scientists, producers and users. The 20 chapters, contributed by 31 scientists, are: Origin, US history and development and world distribution, by A. H. Probst & R. W. Judd (pp. 1-15, 74 ref.); Morphology, by J. B. Carlson (pp. 17-95, 71 ref.); Speciation and cytogenetics by H. H. Hadley & T. Hymowitz (pp. 97-116, 67 ref.); Qualitative genetics, by R. L. Bernard & M. G. Weiss (pp. 117-154, many ref.); Quantitative genetics and breeding, by C. A. Brim (pp. 155-186, 76 ref.); Varietal development, by E. E. Hartwig (pp. 187-210, 68 ref.); Management, by J. W. Pendleton & E. E. Hartwig (pp. 211-237, many ref.); Water and water relations, by H. J. Mederski, D. L. Jeffers & D. B. Peters (pp. 239-266, 93 ref.); Mineral nutrition, by C. J. deMooy, J. Pesek, & E. Spaldon (pp. 267-352, many ref.); Nodulation and nitrogen fixation, by G. Vest, D. F. Weber, & C. Sloger (pp. 353-390, many ref.); Photosynthesis and seed metabolism, by W. L. Ogren & R. W. Rinne (pp. 391-416, many ref.); Weed control, by L. M. Wax (pp. 417-457, many ref.); VJG

30

Soybeans: improvement, production, and uses. [Book]

Caldwell, B. E.; Howell, R. W.; Judd, R. W.; Johnson, H. W. (Editors)

xviii+681pp. (1973) [many ref. En]

Fungal diseases, by K. L. Athow (pp. 459-489, many ref.); Bacterial diseases, by B. W. Kennedy & H. Tachibana (pp. 491-504, 90 ref.); Virus diseases, by J. M. Dunleavy (pp. 505-526, 92 ref.); Nematodes, by J. M. Good (pp. 527-543, many ref.); Insects, by S. G. Turnipseed (pp. 545-572, many ref.); World oil and protein meal situation, by G. W. Kromer (pp. 573-587, 12 ref.); Domestic markets, by J. P. Houck (pp. 589-617, 20 ref.); and Processing and products, by J. C. Cowan (pp. 619-664, many ref.). Topics covered by the chapter on processing and products are: processing for oil and meal; conversion to edible oil products; edible fat products; essential fatty acids and atherosclerosis; industrial uses of oil; edible protein products; and fermented and speciality foods. VJG

31

[Petroleum and proteins.] Petrole et proteines. [Book]

Champagnat, A.; Adrian, J.

195pp. ISBN 2 7040 0039 5 (1974) [many ref. Fr] Paris, France, Doin editeurs. Price 76F [Ecole Nat. Supérieure de Chimie, Strasbourg, France]

This book discusses various aspects of the production of edible proteins from microorganisms (yeasts) grown on petroleum products and contains the following chapters: History (pp. 7-17, 16 ref.); Hydrocarbons and petroleum fractions (pp. 19-28, 8 ref.); Utilization of hydrocarbons by microorganisms (pp. 29-40, 4 ref.); Industrial fermentation of hydrocarbons (pp. 41-64, 10 ref.); Stages in the fermentation process (pp. 65-75, 5

ref.); Fermentation of methane (pp. 77-83, 11 ref.); Industrial installations (pp. 85-94, 7 ref.); Other possibilities for hydrocarbons fermentation (pp. 95-101, 6 ref.); Biochemical composition of yeasts (pp. 103-121, 24 ref.); Nutritional value of yeasts (pp. 123-142, 21 ref.); Hygienic quality of yeasts (pp. 143-155, 24 ref.); Yeasts as food for humans and animals (pp. 157-175, 29 ref.); and Socio-economic implications of petroleum fermentation (pp. 177-192, 8 ref.). JA

CATERING

32

Food purchasing: study course. [Book]

Ross, L.; McHenry, R. M.

xi+97pp. ISBN 0 8138 0810 3 (1971) [11 ref. En] Ames, Iowa, USA; St. Univ. Press. Price \$3.95

This manual is intended for in-service training of personnel engaged in food purchasing for service in catering establishments (hospitals, schools, restaurants, etc.), including techniques for food selection and purchase and the maintenance and use of records. It is based on 12 lessons, which can be covered by self-study; they include some practical exercises and are completed by a written review. Titles of the 12 lessons are: The purchaser and the market; Forms and records; Using forms and records in figuring costs; Red meats; Poultry and fish; Milk, milk products and substitutes; Eggs and cheese; Fruits and vegetables; The extras; Convenience foods; Spending the food dollar; and a Summary. The detailed examples given refer to conditions in the USA. ELC

33

Food preparation: study course. [Book]

Dennler, L.

149pp. ISBN 0 8138 0805 7 (1971) [22 ref. En] Ames, Iowa, USA; St. Univ. Press. Price \$5.95

This manual has been devised for the training of personnel already working in food service departments, with particular attention to: preparation and service of food with min. loss of nutrients; max. retention of flavour and appearance; use of standard recipes, methods of preparation and service; use of various types of equipment; and use of the Basic Four Daily Food Guide (for milk, meat, fruits and vegetables, and cereals) to provide adequate nutrition. It is based on a sequence of 12 lessons (suitable for self-study and ideally, but not essentially, completed at a rate of one lesson/month), in combination with practical activities and preparation of review summaries. Titles of the lessons are: Introduction; Fruit; Salads; Vegetables; Meat; Meat-cooking methods and care; Poultry and fish; Milk and cheese; Eggs; Cereals and starch products; Batters and doughs; and Menu planning. The basic concepts are applicable generally; detailed examples refer to US conditions. ELC

34

Catering science and technology. [Book]

Pyke, M.

xi + 237pp. ISBN 0 7195 4 (1974) [52 ref. En]
London, UK, John Murray (Publishers) Ltd. Price
£3.50

This book is intended for the student commencing a career in catering but should also prove useful to any chef or caterer wishing to improve his theoretical knowledge. The book is divided into 3 parts: Food composition (pp. 3-116); Hygiene (pp. 119-155); and Catering equipment and systems (pp. 159-221). Chapters included are: The chemistry of cooking (pp. 3-33); The principles of nutrition (pp. 34-54); The structure of foods (pp. 55-65); The use of heat (pp. 66-94); Refrigeration and thermostatic control (pp. 95-116); The nature of microorganisms (pp. 119-135); Prevention of spoilage and contamination (pp. 136-155); Catering equipment (pp. 159-172); Catering equipment - combined systems (pp. 173-188); Vending machines and catering equipment (pp. 189-205); and 'Convenience' food for catering systems (pp. 206-221). An appendix: The nutritive composition of representative samples of various foods, is included. VJG

35

Menu planning. [Book]

Eckstein, E. F.

x + 318pp. ISBN 0 87055 147 7 (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$16 (USA) \$17 (Foreign) [St. Coll. for Women, Columbus, Mississippi, USA]

This book reviews knowledge on the basis for item selection in menu planning and integrates supporting concepts from related disciplines. It aims to provide the theoretical framework necessary to the development of menu planning as a rational decision-making process. The book is divided into 4 sections: Mechanics of menu planning; Menu planning for subgroups; Menu planning and computerization; and Foodways of American subgroup cultures. Chapters included are: Introduction to menu planning (pp. 1-3, 4 ref.); Consumer considerations from the management perspective (pp. 4-20, 23 ref.); Worker considerations (pp. 21-23); Management considerations (pp. 24-27, 8 ref.); Menu patterns and meal patterns (pp. 28-29, 7 ref.); Mechanics of menu planning (pp. 30-62, 29 ref.); Menu planning for the following subgroups: Hospital patients, staff and guests (pp. 63-74, 21 ref.); Nursing home patients (pp. 75-79, 11 ref.); Retirement home residents (pp. 80-82, 5 ref.); Adolescents and children (pp. 83-96, 22 ref.); College student consumers (pp. 97-107, 24 ref.); Industrial cafeteria customers (pp. 108-111, 2 ref.); Adults in state institutions (pp. 112-117, 5 ref.); Menu planning for restaurant customers (pp. 118-149, 27 ref.); Basic computer concepts (pp. 150-162, 19 ref.); History of menu planning by computer (pp. 163-178, 40 ref.); [Continued in following abstr.] VJG

36

Menu planning. [Book]

Eckstein, E. F.

x + 318pp. ISBN 0 87055 147 7 (1973) [many ref. En]

[Continued from preceding abstr.] Model

selection and development (pp. 179-185, 4 ref.); Data collection and validation (pp. 186-209, 29 ref.); Programming techniques (pp. 210-219, 7 ref.); Computerizing the menu planning process (pp. 220-225, 3 ref.); Interface interactions with other computerized subsystems (pp. 226-233, 1 ref.); Foodways of the following groups: (pp. 234-238, 7 ref.); Blacks (pp. 239-242, 15 ref.); Chicanos (pp. 243-245, 15 ref.); Native Americans (pp. 246-253, 29 ref.); Puerto Ricans and Cubans (pp. 254-256, 10 ref.); Jews (pp. 257-260, 12 ref.); Vegetarians and fruitarians (pp. 261-264, 14 ref.); Central European-Americans (pp. 265-269, 6 ref.); Eastern European-Americans (pp. 270-272, 4 ref.); Northern European-Americans (pp. 273-274, 4 ref.); Southern European-Americans (pp. 275-279, 13 ref.); Middle East (pp. 280-286, 15 ref.); Chinese Americans (pp. 287-290, 13 ref.); Japanese-Americans (pp. 291-294, 20 ref.); Polynesians (pp. 295-298, 16 ref.); Indians and other orientals (pp. 299-305, 11 ref.); and Russian-Americans (pp. 306-310, 11 ref.). An appendix is included which lists trade magazines and journals, and Americanized ethnic cookbooks. VJG

37

The professional chef. [Book]

Folsom, L. A. (United States of America, Culinary Institute of America) (Editor)

4th edition 470pp. ISBN 0 8486 0571 5 (1974) [41 ref. En] Boston, Massachusetts, USA; Cahners Publishing Co. Inc. Price \$19.95

This book provides a complete training course in the responsibilities and techniques of the modern chef. It contains >550 recipes, many of them illustrated. Photographs are also included showing plate arrangements, garnishes and food combinations. In this 4th edition, the lay-out of the recipes has been improved, and the directions clarified and revised. Chapters are: A chef is many things (p. 1); Food service occupations (pp. 2-3); Hygiene and sanitation (pp. 4-7); Tools and equipment (pp. 8-10); Safety (pp. 10-12); Food cost (p. 13); Converting recipes (p. 14); Appetizers (pp. 15-17); Beverages (pp. 17-19); Breakfast cookery (pp. 20-24); Dairy products (pp. 25-26); Rice and farinaceous products (pp. 26-28); Techniques for meat cookery (pp. 29-35); Beef (pp. 36-65); Lamb (pp. 66-77); Pork (pp. 78-88); Veal and variety meats (pp. 89-101); Poultry and stuffing (pp. 102-135); Fish and shellfish (pp. 136-170); Deep frying and breading (pp. 171-183); Vegetables (pp. 184-219); Salads (pp. 220-255); Salad dressings (pp. 256-262); Soups and stocks (pp. 263-308); Sauces and thickening agents (pp. 309-324). [Continued in following abstr.] JA

38

The professional chef. [Book]

Folsom, L. A. (United States of America, Culinary Institute of America) (Editor)

4th edition 470pp. ISBN 0 8486 0571 5 (1974) [41 ref. En] Boston, Massachusetts, USA; Cahners Publishing Co. Inc. Price \$19.95

[Continued from preceding abstr.] International cuisine (pp. 325-391); How to set up a buffet table

(p. 392); Desserts (pp. 393-422); Menus (pp. 423-444); Metric system (pp. 445-446); Glossary (pp. 447-457); and Bibliography (p. 458). JA

39

Work simplification in food service: individualized instruction. [Book]

Ross, L. N.

ix + 124pp. ISBN 0 8138 0785 9 (1972) [En]
Ames, Iowa USA; St. Univ. Press Price \$4.95

This manual for self-instruction, either alone or under supervision, is based on a series of brief expositions which conclude with a question to which the student must write an answer in a blank space provided. The answer can then be compared with a correct model answer supplied in the manual. If a correct answer has been given the student proceeds to the next statement plus question; if not, the item is re-read and the reason for the incorrect response studied. The progression of items is designed to develop time-and-motion concepts based on 8 principles, followed by application of each concept to a particular food service situation experienced by the individual worker. The 8 principles are: Rhythmic, smooth motions; Both hands productive at the same time; Hand and body motions, few, short and simple; Comfortable working positions; Efficient location of materials; Best available equipment employed; Max. location of activity in normal work area; and Orderly storage of materials. Illustrated accompanying slides are also available. ELC

40

Food service science. [Book]

Smith, L. L. W.; Minor, L. J. (Editors)

viii + 632pp. ISBN 0 87055 146 9 (1974) [4pp. of ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$20 (USA), \$21 (Foreign) [Cornell Univ., Ithaca, New York, USA]

This basic science reference textbook is intended for students of hotel, restaurant and institutional management. It contains the following chapters:

General principles of food service, by R. McIntosh (pp. 1-19); Simplified basic concepts, by L. L. W.

Smith & L. J. Minor (pp. 20-47); Solutions, by L. L. W. Smith & L. J. Minor (pp. 48-65); Gas components, by L. L. W. Smith & L. J. Minor (pp. 66-101); Water: properties and role in foods, by L. L. W. Smith & L. J. Minor (pp. 102-152); Chemical specialities in institutional sanitation, by D. E. Anderson (pp. 153-167); Metals, by L. L. W. Smith & L. J. Minor (pp. 168-179); Floor and building maintenance, by J. J. Heringer (pp. 180-196); The relationships of microorganisms in foods and in food-service systems, by R. V. Lechowich (pp. 197-211); Organic chemistry, by L. L. W. Smith & L. J. Minor (pp. 212-248); Food flavor, by L. L. W. Smith & L. J. Minor (pp. 249-276); Vegetables, by L. L. W. Smith & L. J. Minor (pp. 277-287); Amino acids, food proteins, and enzymes, by L. L. W. Smith & L. J. Minor (pp. 288-318); Meat, by L. L. W. Smith & L. J. Minor (pp. 319-338); Poultry meat, by D. V. Vadehra (pp. 339-357); Eggs, by D.

V. Vadehra (pp. 358-382); Food uses of soy protein in products, by J. Rakosky, Jr. & E. F. Sipos (pp. 383-408). JA

41

Food service science. [Book]

Smith, L. L. W.; Minor, L. J. (Editors)

viii + 632pp. ISBN 0 87055 146 9 (1974) [4pp. of ref. En]

[Continued from preceding abstr.]

Carbohydrates, by L. L. W. Smith & L. J. Minor (pp. 409-428); Products from corn wet millings, by D. A. Bodner (pp. 429-445); Sweeteners, candies and gums, by L. L. W. Smith & L. J. Minor (pp. 446-464); Fat and oil technology, by H. W. Lawson (pp. 465-511); Paints, varnishes and lacquers, by L. L. W. Smith & L. J. Minor (pp. 512-527); Nutrition, by L. L. W. Smith & L. J. Minor (pp. 528-559); Food additives, essential tools of the food scientist, by M. A. Wolf (pp. 560-572) and Selected references and recommended journals (pp. 573-576). 4 appendices are included: Miscellaneous tables (pp. 577-611); Miscellaneous formulations (pp. 612-617); Free fatty acid tests (pp. 618-619); and Calculations used in food analysis (pp. 620-624). JA

42

Contract foodservice/vending. [Book]

Gardner, J. G.

xii + 157pp. ISBN 0 8436 0568 5 (1973) [En]
Boston, Massachusetts, USA; Cahners Publishing Co., Inc. Price \$12.50

This book gives practical guidelines to: the company executive responsible for implementing a foodservice/vending program; operators of employee foodservices; and foodservice teachers and students. The subject is covered under the headings: General background (pp. 1-5); Historical development of industrial foodservice (pp. 6-10); The professional foodservice contractor (pp. 11-17); Operating the manual cafeteria (pp. 18-28); Selling prices of food (pp. 29-33); Understanding profit and loss statements (pp. 34-45); Various types of financial arrangements (pp. 46-48); Vending (pp. 49-59); Economics of vending (pp. 60-71); The proposal (pp. 72-77); Proposal exhibits (pp. 78-93); Controls to insure compliance by foodservice contractor (pp. 94-97); Trends in the industry (pp. 98-104); Conclusion (pp. 105-111); Sample contracts (pp. 112-148). A 4-pp glossary and a 5-pp. subject index are appended. JN

43

Cook/freeze catering. An introduction to its technology. [Book]

Glew, G. (Editor)

168pp. (1973) [21 ref. En] London, UK, Faber & Faber. Price £4.00 [Catering Res. Unit., Leeds Univ., UK]

This book describes the principles and technology of cook/freeze catering. It considers how the use of precooked frozen food enables the caterer to use the science-based techniques of the food manufacturer. The following chapters are included: Technological change and the

catering industry (pp. 19-31); Freezing, storage, transport and reheating (pp. 32-56); Physical and chemical changes due to food processing (pp. 57-82); Microbiological aspects (including microbial growth, food spoilage and food poisoning, production of cooked food for freezing) (pp. 83-104); Food production (equipment, space and staff; food and recipe formulation; effects of processing on palatability) (pp. 105-138); and Packaging (including package function, materials, safety and hygiene, and containers) (pp. 139-148). 3 appendices are included: Calculation of freezing and reheating time (pp. 149-151); Brief specification for a blast freezer (p. 152); and Precooked frozen foods - guidance on nutritional and hygienic implications (pp. 153-160). VJG

CHEMISTRY

44

Food chemistry. [Book]

Aurand, L. W.; Woods, A. E.
vii + 363pp. ISBN 0 87055 142 6 (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$13 (USA) \$14 (Foreign) [St. Univ., Raleigh, N. Carolina, USA]

This textbook for college undergraduates presents the principles of biochemistry required for an understanding of food chemistry. The composition of foods is discussed and the properties and biological function of food components are described under the chapter headings: Water (pp. 1-10, 10 ref.); Solutions (pp. 11-31, 8 ref.); Colloid state (pp. 32-48, 8 ref.); Carbohydrates (pp. 49-103, 35 ref.); Lipids (pp. 104-142, 24 ref.); Proteins (pp. 143-181, 34 ref.); Enzymes (pp. 182-206, 21 ref.); Vitamins (pp. 207-247, 23 ref.); Minerals in foods (pp. 248-270, 25 ref.); Photosynthesis (pp. 271-277, 14 ref.); Fermentation and glycolysis (pp. 278-289, 18 ref.); Respiration (pp. 290-308, 9 ref.); Food and energy (pp. 309-320, 9 ref.); Food glycoside (pp. 321-335, 26 ref.); Flavouring compounds (pp. 336-344, 13 ref.). A detailed 18-pp. subject index is appended. JN

45

[Chemistry of food, chiefly new proteinaceous.]

Kemio de mangajoj, cefe novaj proteinaj. [Book] Kawamura, S.
91 + iipp. (1974) [186 ref. Esperanto] Someraj Univ. Kursoj, Liege, Belgium; [Kagawa Univ., Mikityo, Kagawa 761-07, Japan]

This is a lecture at advanced university level given at the Someraj Universitataj Kursoj at University of Liege, Belgium, Aug. 19-23, 1974. The subject is covered under the headings: Introduction (significance of nutrients, especially protein, and statistics of the supply of protein foods) (pp. 5-13); Usual animal foods (pp. 14-23); Usual vegetable foods as protein source (pp. 24-36); New foods (fish protein concentrates, vegetable meat and milk; improvement of cereal and other proteins, enrichment by fermentation, isolated proteins from grass, single cell protein, and synthesis of amino acids and proteins) (pp. 37-65);

Artificial meat from soybeans (pp. 66-71); and Yeasts from petroleum and derivated compounds (pp. 72-76). A comprehensive bibliography (pp. 77-91) is appended. SKa

46

Evaluating the safety of food chemicals. [Book] United States of America, National Academy of Sciences; United States of America, National Research Council, Food Protection Committee 55pp. ISBN 0 309 01859 5 (1970) [many ref. En] Washington, DC 20418, USA, National Academy of Sciences. Price \$2.50

Some recently proposed or adopted procedures for evaluating the safety of food chemicals are evaluated and compared with conventional procedures. The subject is covered under the headings: Introduction (definition of terms; bases for evaluation of safety; current practice in and scope of toxicologic evaluation); Evaluation of conventional methods; Some recent approaches to safety evaluation (studies on the metabolic fate of chemicals in vivo; biochemical and in vivo studies; design of studies to develop tests applicable to man and properly chosen animals species; physiologic studies); Evaluating carcinogenic potential; and Interpretation and prediction of safety (factors affecting prediction; prediction of safety for man from observations on animals; selection of species; prediction of safety for man from observations on man; in vitro models; evaluation of carcinogenic hazards of chemicals for man). The appendix gives guidelines for estimating toxicologically insignificant levels of chemicals in food. JN

47

Environmental quality and safety. Global aspects of chemistry, toxicology and technology as applied to the environment. Vol. II. [Book]

Coulston, F.; Korte, F. (Editors)
xviii + 333pp. ISBN 3 13 498001 0 & ISBN 0 12 227002 9 (1973) [many ref. En, de] Stuttgart, Federal Republic of Germany; G. Thieme Verlag, New York, USA, Academic Press, Inc.

This book discusses the various aspects of the evaluation of safety of environmental chemicals, drugs, physical agents, pesticides and food additives. Chapters include: Some of the opportunities for science in the food industry, by W. B. Murphy (pp. 14-21); Some FAO activities and attitudes concerning pesticides, by E. E. Turtle (pp. 21-24); DDT-chlorophenothene: the situation in the Federal Republic of Germany, by H. P. Tombergs (pp. 24-25); Drinking water and waste water problems, by C. Mendia (pp. 47-52); Inorganic chemicals in the environment - with special reference to the pollution problems in Japan, by M. Goto (pp. 72-77, 7 ref.); pesticide residues in food - the situation today, by H. Egan (pp. 78-87, 47 ref.); Chemicals in the environment; Some aspects of agricultural chemicals, by H. Hurtig (pp. 88-99, 5 ref.); Food additives, by R. Frank (pp. 100-104); Toxic microelements and therapeutica in food of animal origin, by W. Krenzer (pp. 105-109, 66 ref.); Studies on the

toxicology of nitrites, by N. Gruener & H. I. Shuval, (pp. 219-229, 15 ref.); [Contd. in following abstr.] GL

48

Environmental quality and safety. Global aspects of chemistry, toxicology and technology as applied to the environment. Vol. II. [Book]
Coulston, F.; Korte, F. (Editors)
xviii + 333pp. ISBN 3 13 498001 0 & ISBN 0 12 227002 9 (1973) [many ref. En, de] Stuttgart, Federal Republic of Germany; G. Thieme Verlag, New York, USA, Academic Press, Inc.

[Contd. from preceding abstr.] Cadmium content in sea water, bottom sediment, fish, lichen, and elk in Finland, by T. Jaakkola, H. Takahashi & J. K. Miettinen (pp. 230-237, 24 ref.) Research in the Gesellschaft für Strahlen- und Umweltforschung on the evaluation of the risks involved in environmental chemicals, by W. Klein (pp. 244-247); Economics of fertilizer use by US farmers - productivity and the environment, by V. W. Davies (pp. 260-270, 8 ref.); Economical importance of chemical crop protection in relation to its ecological impact, by W. Salzer (pp. 271-280, 11 ref.); and WHO's food safety programs and the problem of mercury as a food contaminant, by F. C. Lu (pp. 309-319, 29 ref.). [For vol. I see FSTA (1973) 5 7C179, 5 7C180, 5 8C244, 5 8C237, 5 7P945, 5 8H1132.] GL

49

[Technical biochemistry.] Tekhnicheskaya biokhimiya. [Book]
Kretowich, V. L.; Metlitskii, L. V.; Bokuchava, M. A.; Skobeleva, N. I.; Kishkovskii, Z. N.; Il'in, G. S.; Feniksova, R. V.
456pp. (1973) [Ru] Moscow, USSR; Vysshaya shkola. Price 1.33r

The book is divided into the following six parts: biochemistry of grains and corn; biochemistry of fruits and vegetables; biochemistry of tea and tea products; biochemical basis of wine production; biochemistry of tobacco drying and fermentation; biochemical foundation of the production and use of fermentation products. Each part is a complete work on the specific branch of biochemistry. STI

ANALYSIS

50

Food analysis laboratory experiments. [Book]
Meloan, C. E.; Pomeranz, Y.
vii + 143pp. ISBN 0 87055 149 3 (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$8 (USA) \$8.50 (Foreign) [St. Univ. Manhattan, Kansas, USA]

Detailed descriptions of over 50 experiments in food analysis are presented to demonstrate the principles discussed in 'Food Analysis: Theory and Practice' by Y. Pomeranz and C. E. Meloan [see FSTA (1972) 4 2A80 & 81]. The examples demonstrate important instrumental techniques and selected standard methods for assay of food

components and/or quality. A 3-pp. subject index is included. JN

51

Wine and must analysis. [Book]
Amerine, M. A.; Ough, C. S.
viii + 121pp. ISBN 0 471 02545 3 (1974) [370 ref. En] New York, USA, John Wiley & Sons Inc. Price £5.30 [Agric. Expt. Sta., Univ. of California, Davis, USA]

This book, intended primarily for chemists engaged in the analyses of wines and also for students of oenology, details methods for analysing wines and other fermented beverages and includes several foreign methods presented in English for the first time. For each method a discussion is included of the reasons for the analysis and an indication given of the expected range of concentrations. The book is divided into the following major sections, each section containing several subsections: sampling (pp. 3-5); soluble solids (pp. 5-15); acidity and individual acids (pp. 15-29); alcohols (pp. 29-55); carbonyl compounds (pp. 56-64); phenols (pp. 64-73); nitrogen compounds (pp. 73-81); chemical additives (pp. 81-92); other constituents (pp. 92-108), including ash, cations, anions and dissolved gases; and the colour of wine (pp. 108-110). An extensive bibliography and a subject index are incorporated in the book. JA

52

[Wine analysis.] Weinanalytik. [Book]
Franck, R.; Junge, C.
Suppl., 104pp. (1973) [De] Cologne, Federal Republic of Germany, Carl Heymanns Verlag KG. Price DM 31.20

This is the 2nd supplement to the loose-leaf book on wine analysis [see FSTA (1972) 4 3H439], bringing the publication up to date as of Oct. 1, 1973. HBr

53

[Analytical methods for wine and similar beverages.] Untersuchungsmethoden für Wein und ähnliche Getränke. [Book]
Hennig, K.; Jakob, L.
188pp. (1973) [13 ref. De] Stuttgart, Federal Republic of Germany, Verlag Eugen Ulmer. Price DM 36

Analytical procedures, covering the main physico-chemical characteristics, are given for wines and similar beverages, as well as for fruit juices (pp. 11-103). The properties and methods of application of the adjuncts and processing aids (e.g. for clarification) are also described (pp. 104-134). Defects (pp. 135-148) and improvement (fortification) (pp. 149-158) of wines and musts are also covered. An appendix discusses the application of stoichiometry and the production and control of normal solutions, and gives a series of 15 tables covering conversion factors and similar data. A 4pp. subject index is included. HBr

QUALITY CONTROL

54

Food inspection notes. [Book]

Hill, H.; Dodsworth, E.

viii + 134pp. ISBN 0 7186 0386 9 (1973) [30 ref. En] London, UK; H. K. Lewis & Co. Ltd. Price £2.00

This slim pocket-size handbook is the 8th edition of a popular publication which first appeared in 1943, and contains extensive information on practical procedures of food inspection presented in condensed note form. It is intended primarily for public health students and as a rapid source of reference for practising public health officers. The original lay-out is little altered, but a more extensive section on modern methods of food preservation has been added. The major sections cover: meat inspection; poultry; rabbits; game; fish; shellfish; milk; milk products; and other foods, with additional chapters on food additives, food poisoning, food preservation and food sampling. ELC

55

Measurement techniques for quality control of agricultural products. [Book]

Finney, E. E., Jr.

53pp. ISBN 87664 215 6 (1973) [many ref. En] St. Joseph, Michigan, USA; American Society of Agric. Eng. Price \$6.00 [Agric. Marketing Res. Inst., USDA, Beltsville, Maryland 20705, USA]

The monograph deals with instrumental techniques for objective measurement of the physical and chemical characteristics of agricultural products and their use in quality control assessments. It is divided into 4 major sections relating to systems of instrumentation, dealing in each case with basic concepts, descriptions of instruments and techniques of using them (with examples of their application in quality control), defect detection and analysis. The 4 sections, with examples of applications in parenthesis are: Introduction covering basic quality control concepts; Light transmittance and reflectance (maturity ripeness of fruits, defect detection, sorting, analytical methods); X-radiation (fat content of meat, grain inspection, potato sorting, eggshell strength); and Sonics and ultrasonics (fruit texture, carcass quality evaluation, milk fat analysis). The publication is well illustrated and contains an index and a very extensive bibliography. ELC

PHYSICAL PROPERTIES

56

The measurement of appearance. [Book]

Hunter, R. S.

350pp. (1972/1973) [many ref. En] Fairfax, Virginia, USA; Hunter Assoc. Lab., Inc. Price \$12.50

57

Texture measurements of foods. [Book]

Kramer, A.; Szczesniak, A. S. (Editors)

xii + 175pp. ISBN 9 0277 0307 8 (1973) [15pp. of ref. En] Dordrecht, Netherlands, D. Reidel Publishing Co. Price f60 [Univ., College Park, Maryland, USA]

This book discusses the physiological, rheological, structural and psychological fundamentals on which food textural measurements are based, presents descriptions and classifications of different methods of sensory and objective measurements of texture, and reviews mathematical-statistical procedures by which objective methods for measuring textural quality can be developed. Chapters are: Food texture - definition, measurement and relation to other food quality attributes, by A. Kramer (pp. 1-9); Physiological aspects of texture perception, including mastication, by J. N. Yeatman & B. K. Drake (pp. 10-16); Sensory assessment of textural attributes of foods, by J. A. Abbott (pp. 17-32); Elementary concepts of rheology relevant to food texture studies, by E. E. Finney, Jr. (pp. 33-51); Structure and textural properties of foods, by P. Sherman (pp. 52-70); Instrumental methods of texture measurements, by A. S. Szczesniak (pp. 71-108); Indirect methods of objective texture measurements, by A. S. Szczesniak (pp. 109-117); Psychophysical and psychometric measures of texture, by H. P. Moskowitz, B. K. Drake & C. Akesson (pp. 118-129); and Quantification of objective and sensory texture relations, by J. G. Kapsalis, A. Kramer & A. S. Szczesniak (pp. 130-160). The book concludes with a bibliography (pp. 161-175) compiled by M. C. Bourne. JA

58

Turbulence phenomena. [Book]

Davies, J. T.

xi + 412pp. ISBN 0 12 206070 9 (1972) [many ref. En] New York, USA; Academic Press Inc. [Dept. Chem. Eng., Univ., Birmingham, UK]

The subject, turbulent transport in gases and liquids, is treated with special emphasis on transport at various solid-fluid, gas-liquid and liquid-liquid interfaces, covering turbulence of pipe flows, jets, stirred tanks, falling drops and films, transport of momentum, heat and mass, etc. It is intended for chemical and mechanical engineers, those involved with problems of turbulence and as a text book for students at universities and technical institutes. FL

59

An annotated bibliography on microwaves, their properties, production, and applications to food processing. [Book]

Goldblith, S. A.; Decareau, R. V.

xi + 356pp. ISBN 0 262 07049 9 (1973) [En] Cambridge, Massachusetts, USA; MIT Press. Price £6.75 [Massachusetts Inst. of Tech., USA]

This annotated bibliography covers more than 600 articles (including patents), the abstracts being cross-indexed by author and by subject and arranged alphabetically under the following headings: Books review articles and

announcements (pp. 1-39); Biological effects of microwaves, personnel safety, measurement of low doses, etc. (pp. 43-75); Dielectric properties of foods and biological materials and their measurement (pp. 79-115); Microwave equipment - power sources, ovens, wave guides, tunnels, etc. (pp. 119-168); Applications of microwaves for the following purposes: baking and milling (pp. 171-182); blanching and enzyme inactivation (pp. 183-191); cooking (pp. 192-214); defrosting of frozen foods (pp. 215-229); dehydration (pp. 230-242); food service, vending, and catering (pp. 243-253); freeze dehydration (pp. 254-266); insect control (pp. 267-268); nutritional effects of microwaves (pp. 269-277); packaging for microwave processing (pp. 278-283); potato chip finish drying (pp. 284-288); poultry precooking (pp. 289-293); precooked bacon and meat processing (pp. 294-301); processing - general and miscellaneous (pp. 302-317); and sterilization and pasteurization (pp. 318-336). VJG

MICROBIOLOGY

60

Handbook of micromethods for the biological sciences. [Book]

Keleti, G.; Lederer, W. H.
xiv+166pp. ISBN 0 442 24290 5 (1974) [many ref. En] New York, USA; Van Nostrand Reinhold Co.

This concise laboratory handbook is a compilation of 106 methods, each specifically detailing a biochemical or microbiological method of preparation or analysis. The methods are grouped into 3 sections: Preparation of material for chemical analysis or biological characterization (31 methods); Microanalytical methods (50 methods including analyses of sugars, fatty acids and proteins); and Biological characterization (25 methods for complement fixation and other immunological reactions). CDP

61

[Fundamentals of food microbiology.] Grundlagen der Lebensmittelmikrobiologie. [Book]

Müller, G.
215pp. (1974) [179 ref. De] Leipzig, German Democratic Republic, VEB Fachbuchverlag Price M 15.80 [Sektion Nahrungsgüterwirtschaft und Lebensmitteltech., Humboldt-Univ., Berlin (GDR)]

The first part of this book (pp. 11-149), intended primarily as a textbook for food engineers, gives a general introduction to microbiology, covering the main groups of organisms (bacteria, fungi, viruses) and the physiology and biochemistry of the microorganisms. Special attention is paid to aspects of potential food interest. The second part of the book (pp. 151-194) covers the microbiological fundamentals behind the methods used for preserving foods (high temp., low temp., drying, irradiation, chemical methods). A 12pp. subject index is included. HBr

62

Reference methods for the microbiological examination of foods. [Book]

United States of America, National Research Council, Food Protection Committee
39pp. ISBN 0 309 01863 3 (1971) [many ref. En] Washington, DC, USA, National Academy of Sciences. Price \$2.25

This publication covers recommended procedures for the following: preparation of the food homogenate; aerobic mesophilic plate count; examination of food for coliform bacteria (presumptive and confirmatory tests, and identification of subgroups); detection of salmonellae in foods; and isolation and confirmation of *Clostridium botulinum* and detection of toxins. No reference method for detection of coagulase-positive staphylococci can be recommended at present. An appendix on *Salmonella* methodology deals principally with the functions of pre-enrichment. CDP

63

Sampling - microbiological monitoring of environments. [Book]

Board, R. G.; Lovelock, D. W. (Editors)
xii+267pp. ISBN 0 12 108250 4 (1973) [many ref. En] London, UK; Academic Press Inc. Price £6.00 [School of Biol. Sci., Univ. of Bath, Claverton Down, UK]

This book, which is No. 7 in the Society for Applied Bacteriology Technical Series, includes contributions to the Autumn Demonstration Meeting of the Society, held in London on 27 Oct., 1971. Papers presented include: Microflora of Cheddar cheese and some of the metabolic products, by B. A. Law, M. E. Sharpe, L. A. Mabbitt & C. B. Cole (pp. 1-9, 27 ref.); The microbiological examination of cured meats, by G. A. Gardner & A. G. Kitchell (pp. 11-20, 31 ref.); Routine microbiological examination of Wiltshire bacon curing brines, by G. A. Gardner (pp. 21-27, 11 ref.); Methods for the general microbiological examination of Wiltshire bacon curing brines, by A. H. Varnam & J. M. Grainger (pp. 29-41, 38 ref.); Microbiological sampling in abattoirs, by A. G. Kitchell, G. C. Ingram & W. R. Hudson (pp. 43-61, 47 ref.); The sampling of chickens, turkeys, ducks and game birds, by E. M. Barnes, C. S. Impey & R. T. Parry (pp. 63-75, 34 ref.); Vineyard yeasts - an environmental study, by R. R. Davenport (pp. 143-174, 36 ref.); Automation and instrumentation developments for the bacteriology laboratory, by A. N. Sharpe (pp. 197-232, 6 ref.); and Sampling of food and other material for bacteriological and ecological studies, by B. C. Hobbs, W. Clifford, A. C. Ghosh, R. J. Gilbert, M. Kendall, D. Roberts & A. A. Wieneke (pp. 232-252, 13 ref.). VJG

YEASTS

64

[Microbiology of yeast manufacture.] Mikroflora drozhzhenogo proizvodstva. [Book]

Bocharova, N. N.; Kobrina, Yu. P.; Rozmanova, N.

V.
150pp. (1972) [many ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya promyshlennost'. Price 0.58 r

This book deals briefly with the characteristic properties of bakery yeasts of various varieties. It contains the following chapters: Description of microorganisms used for yeast production (pp. 3-58); New methods of microbiological control (pp. 58-70); Contamination by various microorganisms during yeast manufacture (pp. 70-75); Relation of bakery yeasts to undesirable microorganisms (pp. 75-88); and Methods of controlling contamination during yeast production (pp. 88-134). STI

65

Yeast technology. [Book]

Reed, G.; Peppler, H. J.
vi+378pp. ISBN 0 87055 136 1 (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price US \$25.00, Foreign \$26.00 [Universal Foods Corp., Milwaukee, Wisconsin, USA]

This book, which is intended as a guide to the principles underlying commercial operations, gives a broad introduction to the technology of yeast in the food and beverage industries. It should prove useful to good technologists as well as physicists, chemists and engineers interested in the technology of yeast. The following chapters are included: Naming and classifying yeasts (pp. 1-14, 106 ref.); Biological aspects of yeasts (pp. 15-32, many ref.); Biochemical aspects of yeasts (pp. 33-46, 79 ref.); Microbiological aspects of yeast technology (pp. 47-52, 56 ref.); Bakers' yeast production (pp. 53-102, many ref.); Use of yeast in baking (pp. 103-164, many ref.); Wine yeasts (pp. 165-236, many ref.); Brewers' yeast (pp. 237-303, many ref.); Distillers' yeast (pp. 304-316, 34 ref.); Sake, kefir, koumiss and kaffir beer (pp. 317-327, 33 ref.); Feed and food yeasts (pp. 328-354, many ref.); and Yeast-derived products (pp. 355-366, 54 ref.). A 4pp. glossary is included. VJG

ENZYMES

66

The enzymes. Vol. IV. Hydrolysis: other C-N bonds, phosphate esters. [Book]

Boyer, P. D. (Editor)
Ed. 3, xxi+896pp. ISBN 0 12 122704 9 (1971) [many ref. En] New York, USA; Academic Press Inc. Price £15.65

[See FSTA (1972) 4 2A64-2A66 for Vol. I-III and (1974) 6 8A357 for Vol. IX.]

67

The enzymes. Vol. V. Hydrolysis, sulfate esters, carboxyl esters, glycosides; hydration. [Book]

Boyer, P. D. (Editor)
Ed. 3, xxiii+734pp. ISBN 0 12 122705 7 (1971) [many ref. En] New York, USA; Academic Press Inc. Price. £14.70

68

The enzymes. Vol. VI. Carboxylation and

decarboxylation (nonoxidative), isomerization.

[Book]

Boyer, P. D. (Editor)
Ed. 3, xx+678pp. ISBN 0 12 122706 5 (1972) [many ref. En] New York, USA; Academic Press Inc. Price £13.80

69

The enzymes. Vol. VII. Elimination and addition, aldol cleavage and condensation, other C-C cleavage, phosphorolysis, hydrolysis (fats, glycosides). [Book]

Boyer, P. D. (Editor)
Ed. 3, xiii+959pp. ISBN 0 12 122707 3 (1972) [many ref. En] New York, USA; Academic Press Inc.

70

The enzymes. Vol. VIII. Group transfer. Part A. Nucleotidyl transfer, nucleosidyl transfer, acyl transfer, phosphoryl transfer. [Book]

Boyer, P. D. (Editor)
Ed. 3, xx+651pp. ISBN 0 12 122708 1 (1973) [many ref. En] New York, USA; Academic Press Inc. Price £16.15

[See also FSTA (1974) 6 8A357.]

71

The enzymes. Vol. IX. Group transfer. Part B. Phosphoryl transfer, one carbon group transfer, glycosyl transfer, amino group transfer, other transferases. [Book]

Boyer, P. D. ((Editor))
Ed. 3, xxii+586pp. ISBN 0 12 12709 X (1973) [many ref. En] New York, USA, London, UK, Academic Press, Inc. Price £16.15

This volume deals with the important and versatile enzymes that catalyse the transfer of a variety of chemical groups; the most extensively studied enzymes are those which catalyse phosphoryl group transfer from ATP to various acceptors. Separate chapters, by a variety of authors, contain considerable information at the molecular level about either the enzyme or the process catalysed for the hexokinases, nucleoside and nucleotide kinases, carbamate kinase, N⁵-methyltetrahydrofolate-homocysteine methyltransferases, enzymic methylation of natural polynucleotides, folate coenzyme-mediated transfer of one-carbon groups, aspartate transcarbamylases, glycogen synthesis from UDPG, lactose synthetase, amino group transfer, coenzyme A transferases, amidinotransferases, and N-acetylglutamate-5-phosphotransferase. [See FSTA (1972) 4 2A64-2A66 for Vol. I-III.] DMK

HYGIENE AND SANITATION

72

[Basic microbiology, health and hygiene in the production of meat and meat products.] Osnovy mikrobiologii, sanitarii i gigieny v proizvodstve myasa i myasnykh produktov. [Book]
Kostenko, Yu. G.

120pp. (1973) [12 ref. Ru] Moscow, USSR, Pishchevaya Promshlennost' Price 0.15 r

This paperback book, designed for use in specialist educational establishments, contains the following chapters: General microbiology; Microbiology of meat and meat products; Public health evaluation of slaughterhouse products infected with pathogens dangerous to man; Food poisoning and prophylaxis; Sanitation and hygiene at meat plants; and Sanitary hygiene requirements of various departments of a meat plant. HBr

73

Hygiene in food manufacturing and handling. [Book]

Graham-Rack, B.; Binsted, R.
Second edition viii + 185pp. ISBN 0 900379 06 5 (1973) [33 ref. En] London WC2E 9AT, UK, Food Trade Press Ltd.

This 2nd edition of a book first published in 1964 [See FSTA (1970) 2 2C42 for 1st edition] retains the same format but has been revised and extended. While sections are included on food poisoning, the normal medical approach is avoided. The book is intended for food factory personnel and is a practical, illustrated guide to all aspects of avoiding contamination of food, including the design, construction, cleaning and sterilization of buildings and machinery, and pest control, together with essential engineering details and information on recently introduced detergents, sterilizing agents and pesticides. Chapters are: An introduction to the problems of food poisoning and spoilage (pp. 3-9); Bacteria, moulds and yeasts (pp. 10-19); Digestive system (pp. 20-23); Bacterial food poisoning (pp. 24-29); Cases of food poisoning (pp. 30-39); Non-bacterial food poisoning (pp. 40-44); Food spoilage (pp. 45-50); Protection of food (pp. 51-62); Construction and lay-out of plant and equipment (pp. 63-94); Cleaning methods (pp. 95-136); Pest control and hygiene (pp. 137-157); Hygiene contract services (pp. 158-169); and Statutory regulations (pp. 170-179). A 2pp. list of books and leaflets is given for further reference. ELC

74

[Sanitary control of food products and other consumer goods.] Nadzor sanitarny nad zynownoscia i przedmiotami uzytku. [Book]

Nikonorow, M.; Hrynyk, K.; Sadowska, H.; Studniarska, B.; Witkowski, H.
426pp. (1972) [21 ref. Pl] Warsaw, Poland, Panstwowy Zaklad Wydawnictw Lekarskich Price 40 zl

This book is intended to serve as a handbook for people engaged in sanitary control of foods and other consumer goods. The chapters dealing with food control are: General information on food products (pp. 40-75); Duties of sanitary officers (pp. 101-171); Principles of food processing (pp. 171-196); Sanitary requirements of individual food processing plants (pp. 196-349); Sanitary control relating to imported food commodities (pp. 349-363); and Legal aspects (pp. 369-394). STI

75

Proceedings of the 1971 National Conference on Food Protection. [Book]

United States of America, American Public Health Association

v + 242pp. (1971) [En] Washington, DC, USA

The 1971 National Conference on Food Protection, sponsored by the American Public Health Association, was held on 4-8 April, 1971 at Denver, Colorado, USA. Representatives drawn from the food industry, government, professional associations, consumer protection groups and universities met to develop a national plan for more effective control of microbiological contamination of food supplies. The published proceedings include opening contributions outlining the serious nature of contemporary health and environmental problems, the need for cooperation between the food industry and official agencies, and the unsatisfactory nature of existing control measures and protection of the public arising from fragmentation between numerous authorities. These are followed by 'Workshop Reports' and specific recommendations for action drawn up by 10 expert panels on the following topics: contamination of raw agricultural products; food processing; [continued in following abstr.]. ELC

76

Proceedings of the 1971 National Conference on Food Protection. [Book]

United States of America, American Public Health Association

v + 242pp. (1971) [En] Washington, DC, USA

[Continued from preceding abstr.] mishandling of foods in institutional services; consumer education of food hazards; improved detection of microbial food hazards; co-ordination of regulating agencies and ultimate centralization under one agency; lack of adequately trained manpower; public support for food protection; monitoring of programme effectiveness; and research needs in microbiology. The implementation of recommendations and the role of the consumer conclude the contributions. ELC

INDUSTRIES, STATISTICS,

MANAGEMENT, ECONOMICS

77

FAO commodity review and outlook 1972-1973. [Book]

Food & Agriculture Organization
261pp. (1973) [En] Rome, Italy, FAO Price £3.00

The 3 chapters of this review deal respectively with the general commodity situation and outlook; trends and problems of regional and interregional trade; and the situation and outlook by commodities (wheat, coarse grains, rice, milk and milk products, meat and poultry, oilseeds, oils and fats, sugar, bananas, citrus fruit, coffee, cocoa, tea, wine and fishery products). ADL

78

Situation/outlook 1974. [Book]

Canada, Department of Agriculture, Economics Branch

v + 262pp. (1974) [En] [Ottawa, Canada]

This book consists of preliminary versions of papers presented at the 1974 Canadian Agricultural Outlook Conference (held in Ottawa, 28-29 Jan. 1974). Papers include: Wheat situation and wheat outlook, by J. S. Carmichael; Oilseeds situation and oilseeds outlook, by B. W. Paddock; Beef situation, beef outlook, veal situation, veal outlook, hog situation, hog outlook, sheep and lamb situation and sheep and lamb outlook, by A. M. Boswell & J. H. Berry; Dairy situation and dairy outlook, by V. McCormick; Poultry and eggs situation and poultry and eggs outlook, by N. Longmuir; Special crops situation and special crops outlook, by N. Longmuir & A. J. de Leeuw; and Horticultural situation and horticultural outlook, by T. A. Bennett. Detailed tables and graphs are included in most of the papers. [see also following abstr.] AJDW

79

Canadian Agricultural Outlook Conference January 28, 29, 1974.

Canada, Department of Agriculture, Economics Branch

Canadian Farm Economics 9 (1) 1-126 (1974) [En] [Ottawa]

The full text is given of papers presented at the 1974 Canadian Agricultural Outlook Conference (held in Ottawa, 28-29 Jan. 1974) including the following: World food shortage, by A. G. Leeks; Designed foods, by J. A. Elliott; Wheat outlook, by S. W. Garland; Wheat - implications and alternatives, by W. M. Miner; Oilseeds outlook, by B. W. Paddock; Oilseeds - implications and alternatives, by W. J. Craddock; Beef outlook, by F. E. Payne; Beef - implications and alternatives, by C. A. Gracey; Hog outlook, by A. M. Boswell; Hogs - implications and alternatives, by S. S. Berg; Poultry outlook, by N. L. Longmuir; Poultry - implications and alternatives, by B. Lavigne; Dairy outlook, by V. McCormick; Dairy - implications and alternatives, by E. Powers; Horticultural outlook, by T. A. Bennett, A. P. Chan & K. M. Hunter; Horticulture - implications and alternatives, by C. Bernhardt; and Special crops outlook, by N. L. Longmuir, A. J. de Leeuw & C. H. Jefferson. [See also preceding abstr.] AJDW

80

European food processing industry. [Book]

Noyes Data Corporation

2nd edition xi + 263pp. ISBN 0 8155 0503 5 (1973) [En] Park Ridge, New Jersey 07656, USA, Noyes Data Corp. Price \$36.00

This market report on the food processing industry of western Europe should prove useful in sales, market research, development, planning, acquisitions and mergers. The book contains 17 sections, each section covering one country (Austria, Belgium, Denmark, Finland, France,

Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, UK). Each section begins with a brief discussion of the country's food industry, giving statistics for total production, consumption and trade. This is followed (where appropriate) by discussions and statistical data on the following sections of the industry: dairy, confectionery, cakes and biscuits, canned and preserved food (meat, fish, fruits and vegetables), frozen foods, soft drinks, soups, broths and bouillons, jams and preserves, and specialties of each particular country. Each section closes with a list, arranged under the above commodity classes, of the names and addresses of the country's major food manufacturers. JA

81

Establishing a manufacturing plant in Europe. [Book]

Noyes Data Corporation

x + 373pp. ISBN 0 8155 0514 0 (1974) [En] Park Ridge, New Jersey, USA, Author

This book aims to provide knowledge on investment and plant location in 22 European countries. It seeks to provide a comprehensive guide to the practical workings of the investment incentives offered by the various European governments. The information is in each case (where available and relevant) arranged under the following headings; recent industrial development, forms of business organization, taxation (personal and company), investment incentives, labour and training, regional development, repatriation of capital and remittance of profits, cost factors (land and construction, labour, social insurance), energy, raw materials, transportation and communications, agencies concerned with industrial growth, banks and financial institutions. Countries covered are: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and Yugoslavia. VJG

82

Food and beverage management. [Book]

Fearn, D. A.

294pp. ISBN 0 408 70158 7 (1973) [15 ref. En] London, UK; Butterworth & Co. Ltd. Price £4.00

The objective of this book is to provide the hotel and catering industry with a comprehensive reference to the complexities of managing food and beverage operations. Chapters included are: Food and beverage management - its meaning (pp. 1-15); Market research (pp. 16-34); The 'meal experience' (pp. 35-47); Planning the menu (pp. 48-56); Menu marketing (pp. 57-63); The back door (pp. 64-72); Requisitions (pp. 73-77); Storage (pp. 78-83); Centralized production (pp. 84-95); Advertizing and promotion (pp. 96-107); Purchasing wine (pp. 108-114); Bar and cellar stockholding (pp. 115-124); The economics of food and beverage operations (pp. 125-143); Kitchen planning (pp. 144-150); Personnel administration (pp. 151-163);

Control (pp. 164-179); Food control (pp. 180-198); Liquor control (pp. 199-224); Manpower control (pp. 225-231); Total control and management action (pp. 232-255); Training (pp. 256-262); Future of food and beverage operations (pp. 263-275); and Management audit (pp. 276-283). VJG

83

Guide to foodservice management. [Book]

Cloyd, F. (Editor)

v+184pp. ISBN 0 8436 0554 5 (1972) [En] Boston, Massachusetts, USA; Cahnners Publishing Co., Inc. Price \$9.50

This collection of articles from publications of the National Association of College and University Food Services includes the following: Let's put management into focus, by R. Rodgers (pp. 1-4); Performance standards - management tool, by R. Guyon (pp. 5-10); Making middle management effective, by G. D. Smith (pp. 22-13); Management training programmes by W. T. Umbreit (pp. 14-21); Key to management meeting success, by R. D. Buchanan (pp. 22-34); Communication, by R. D. Buchanan (pp. 35-42); There's profit in listening, by R. P. Smith (pp. 43-45); Evaluation as a forecasting tool, by W. K. Miller (pp. 46-48); What can the computer do? by G. Tavis (pp. 49-52); Computer-assisted menus, by S. Levy (pp. 53-68); Computer programmes that work, by T. P. Root (pp. 69-72); Tests for food management constructs by T. W. Minah (pp. 73-79); Creating a successful foodservice, by J. C. Birchfield (pp. 80-84b); The future of prepared foods, by H. Zaccarelli (pp. 85-88); Convenience foodservice systems, by R. D. Buchanan (pp. 89-96b); Industrial engineering principles sharpen foodservice design, layout, by S. C. Prokosch, (pp. 97-108); Equipment + design = foodservice efficiency, by J. C. Priese (pp. 109-112); Why do they eat when they do?, by S. Haack, (pp. 113-119); Implementing continuous meal service, by D. P. Alfonso, J. C. Miller, J. C. Friese (pp. 120-122). (Continued in following abstr.) JN

84

Guide to foodservice management. [Book]

Cloyd, F. (Editor)

v+184pp. ISBN 0 8436 0554 5 (1972) [En] Boston, Massachusetts, USA; Cahnners Publishing Co., Inc. Price \$9.50

(Continued from preceding abstr.) Too many food plans? Charge it! by J. Birchfield (pp. 123-136); Setting up a sanitation program, by W. L. Mallmann (pp. 137-141); Conducting a cook's workshop, by L. E. Horton (pp. 142-145); Public relations via radio tapes, by E. Higgins (pp. 146-153); An Englishman views US Foodservice, by M. A. Roberts (pp. 154-157); Monotony breakers for foodservice (pp. 158-175); Bibliography: centralized foodservice; convenience food systems, by R. D. Buchanan (pp. 176-184). JN

85

[**Structure of the Danish dairy industry.**] Structures de l'industries laitieres au Danemark. [Book] France, Centre Francais du Commerce Exterieur

126pp. (1973) [Fr] Paris, France, Centre Francais du Commerce Exterieur Price 225 F

The development of the Danish dairy industry is reviewed, with particular reference to recent trends towards concentration among the major dairy firms. Details are given of the various products manufactured, their marketing at home and abroad, and the factors determining their prices. A concluding section discusses the implications of Danish entry into the EEC both for Denmark itself and for the other member countries. ADL

86

[**The British Cheddar market and its prospects.**] Le marche britannique du Cheddar et ses perspectives. [Book]

France, Centre Francais du Commerce Exterieur 150pp. (1973) [Fr] Paris, France, Centre Francais du Commerce Exterieur, Price 225 F.

An analysis is made of the characteristics of the UK Cheddar market and of statistics on Cheddar production, consumption and imports in the UK. An attempt is made to extrapolate these statistics to forecast the market potential for French Cheddar producers up to 1977: it is suggested that there should be a marked increase in French Cheddar exports to the UK provided certain conditions are fulfilled. The final part of the study analyses UK consumers' criticisms of French Cheddar and discusses possible remedial measures. Data are presented on UK producers, importers and distributors who are purchasers or potential purchasers of French Cheddar. ADL

87

[**Economics of the meat industry.**] Ekonomika myasnoi promyshlennosti. [Book]

Krasnov, S. E.; Sterligov, V. I.

480pp. (1973) [46 ref. Ru] Moscow, USSR, Pishchevaya Promyshlennost' Price 1.98 r

This book, designed as a textbook for students of universities etc. studying aspects of the meat industry, contains the following chapters: The meat industry in the national economy of the USSR; Organization of management and planning in the meat industry; The raw materials; Technological progress; Production planning and output; Concentration, specialization, cooperation and amalgamation of production; Distribution in the meat industry; Capital construction; Financial basis of the meat industry; Provision of raw materials and equipment, and marketing of produce; Labour productivity, personnel and wages; Production costs, prices and profitability; and Financing and credit. HBr

PROCESSES AND EQUIPMENT

88

[**Technology and equipment for the manufacture of convenience foods.**] Tekhnologiya i oborudovanie proizvodstva sukhikh zavtrakov. [Book]

Gorun, E. G.; Potapov, V. D.

143pp. (1972) [Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'. Price 0.30 r

This book includes the following chapters: Grain products (pp. 3-49); Puffed products (pp. 49-65); Corn rods (pp. 65-79); Dry breakfast foods prepared from dough (pp. 79-91); Potato products (pp. 91-114); Crispy potato products (pp. 114-134); Types of products, their quality and use (pp. 134-141); and Convenience foods prepared from potatoes (pp. 141-143). STI

89

The complete book of cooking equipment. [Book] Wilkinson, J. viii+257pp. ISBN 0 8436 0547 2 (1972) [En] Chicago, Illinois, USA, Institutions/Volume Feeding Magazine, Price \$12.95

This book is a revised, expanded and up-dated version of the manual which appeared in 1964. It contains the latest information on purchasing, operating and maintaining food service equipment. It should be of value to operators who want to learn about new equipment or how to make the most of the equipment they have. The following chapters are included: Ranges (pp. 1-8); Steam cooking equipment (kettles and cookers) (pp. 9-27); Ovens (deck, revolving, convection and microwave) (pp. 28-68); Griddles and grills (pp. 69-80); Fryers (pp. 81-93); Broilers (pp. 94-108); Infra-red lamps (pp. 109-116); Speciality equipment (pp. 117-135); Recipes (200 quality recipes geared to specific types of equipment) (pp. 136-164); Storage (pp. 165-170); Handling dry stores (pp. 171-187); Storage requirements (pp. 188-202); Scales for systems control (pp. 203-210); Refrigeration (pp. 211-218); Refrigerated storage (pp. 219-232); Frozen food units (pp. 233-238); Frozen food storage (pp. 239-246); Housekeeping storage (pp. 247-250). VJG

90

[Equipment in canning factories.]

Tekhnologicheskoe oborudovanie konservnykh zavodov. [Book] Dikis, M. Ya.; Mal'skii, A. N. 423pp. (1973) [Ru] Moscow, USSR; Pishchevaya Promyshlennost' Price 1.15r

See FSTA (1970) 2 10E445.

91

Low temperature preservation of foods and living matter. [Book]

Fennema, O. R.; Powrie, W. D.; Marth, E. H. (Editors) xi+598pp. ISBN 0 8247 1185 8 (1973) [many ref. En] New York, USA; Marcel Dekker, Inc. Price \$32.50 [Dept. of Food Sci., Univ. of Wisconsin, Madison, USA]

This book, which is the third volume in the Food Science Series, is intended primarily for students and research scientists but should be of value to those involved in commercial freezing operations. Chapters include: Water and ice, by O. Fennema (pp. 1-77, 197 ref.); Selected properties of foods and living matter, by O. Fennema (pp. 79-100, 63 ref.); Solid-liquid equilibria, by O. Fennema (pp. 101-149, 57 ref.); Nature of the freezing process,

by O. Fennema (pp. 150-239, 260 ref.); Characteristics of fluid foods and their behaviour during freeze-preservation (including milk and milk products, and egg yolk), by E. D. Powrie (pp. 240-281, 177 ref.); Characteristics of food myosystems and their behaviour during freeze-preservation, by W. D. Powrie (pp. 282-351, 313 ref.); Characteristics of food phytosystems and their behaviour during freeze-preservation, by W. D. Powrie (pp. 352-385, 121 ref.); Behaviour of food microorganisms during freeze-preservation, by E. H. Marth (pp. 386-435, 247 ref.); Freezing injury and cryoprotectants, by O. Fennema (pp. 476-503, 131 ref.); and Freeze-preservation of foods - technological aspects, by O. Fennema (pp. 504-550, 212 ref.). VJG

92

[Freeze-drying in the food industry.]

Sublimatsionnaya sushka v pishchevoi promyshlennosti. [Book] Guigo, E. I.; Zhuravskaya, N. K.; Kaukhcheshvili, E. I. 433pp. (1972) [442 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya promyshlennost'. Price 2.74 r

This book covers present knowledge on freeze-drying of food as one of the most up-to-date food preservation methods. It contains the following chapters: General theoretical knowledge on freeze-drying (pp. 3-90); Patterns of heat and mass transfer in different stages of the process (pp. 90-118); Analytical description of the process (pp. 118-154); Freeze-drying machinery (pp. 154-220); Technological principles of freeze-drying of food products (pp. 225-336); Control of freeze-drying process (pp. 337-356); and Economics of commercial use of freeze-drying for food preservation (pp. 356-406). STI

93

Food dehydration. Vol. 2. Practices and applications. [Book]

Arsdel, W. B. van; Copley, M. J.; Morgan, A. I., Jr. (Editors) 2nd edition xi+529pp. ISBN 0 87055 138 8 (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$28.00 (USA), \$29.00 (Foreign) [W. Regional Res. Lab., USDA, Albany, California, USA]

This 2nd edition of the book, first published in 1964, contains 2 new chapters on cereals and intermediate moisture foods. Chapters are: Vegetables, by B. Feinberg (pp. 1-82, many ref.); Potatoes, by H. K. Burr & R. M. Reeve (pp. 83-157, many ref.); Fruits, by F. S. Nury, J. E. Brekke & H. R. Bolin (pp. 158-198, 115 ref.); Fruit and vegetable juices, by J. D. Ponting, W. L. Stanley & M. J. Copley (pp. 199-245, 149 ref.); Meat dehydration, by W. L. Sulzbacher (pp. 246-265, 31 ref.); Dehydration of fishery products, by L. J. Ronsivalli & R. J. Learson (pp. 266-289, 68 ref.); Dry milk products, by S. T. Coulter & R. Jenness (pp. 290-346, many ref.); Eggs, by D. H. Bergquist (pp. 347-383, 122 ref.); Coffee and tea, by J. H.

Nair & M. Sivetz (pp. 384-436, 130 ref.); Dry soups and other dry mixes, by J. H. Nair & D. H. Warren (pp. 437-464, 8 ref.); Drying cereal grains and other field crops, by G. H. Foster (pp. 465-488, 53 ref.); and Intermediate moisture foods, by M. C. Brockmann (pp. 489-505, 50 ref.). 2 appendices are included: Peroxidase test procedure to indicate adequacy of blanching (pp. 506-507); and Glossary of some of the technical terms used in Vol. 1 and 2 of 'Food dehydration' (pp. 508-524). [See FSTA (1973) 5 11E368 for Vol. 1.] JA

94

[Automation of grain storage.] Avtomatizatsiya zernopunktov. [Book]

Krausp, V. R.; Rasstrigin, V. N.; Groshev, V. N. 248pp. (1973) [18 ref. Ru] Moscow, USSR; Rossel'khozizdat Price 0.66 r

This book, which contains a large number of illustrations in diagrammatic form, consists of the following chapters: Modern grain storage points and types of automation system (pp. 3-16); Blocking systems, signalling and safeguarding of machinery (pp. 17-37); Regulating grain flow to containers and machinery on continuous flow lines (pp. 38-55); Control and regulating equipment (pp. 56-70); Automation of cleaners and sorters (pp. 71-92); Automation of ventilated grain hoppers (pp. 93-118); Automation of drying systems (pp. 119-166); Automated grain storage points and their control systems (pp. 167-219); Technical and economic effectiveness of automating grain storage (pp. 220-229); and Running in and operation of automated systems, and the safety aspects (pp. 230-242). HBr

95

[Presses in food and feedstuff manufacture.] Pressy pishchevykh i kormovykh proizvodstv. [Book] Sokolov, A. Ya.; Karabaev, M. M.; Zaichik, Ts. R. 287pp. (1973) [Ru] Moscow, USSR; Mashinostroenie. Price 1.21r

Presses are used in most branches of the food industry. In this book, worm presses and presses for granulated feedstuffs are studied in detail. Worm presses are being widely used in paste products manufacture, and in the fat, dairy, meat and fermentation industries. Some problems connected with engineering computations, construction, design and progressive use of the presses are explained. The results of research work by the authors on the equipment are given. STI

96

[Technological planning of factories for the fermentation industry.] Tekhnologicheskoe proektirovanie predpriyatii fermentnoi promyshlennosti. [Book]

Gracheva, I. M.; Kalunyants, K. A.; Kestel'man, V. N.; Petrova, N. M. 287pp. (1973) [Ru] Moscow, USSR; Pishchevaya promyshlennost'. Price 1.18r

The book is a first attempt to generalize the experiences from designing domestic factories for manufacture of enzyme preparations. General

questions of planning work are shortly explained, e.g. basic principles of drafting the project, the budget for industrial construction, questions of type-design, and general plant of the plant. Some examples given include: layouts for particular manufacturing steps; technological and equipment schemes for manufacture of different enzyme preparations; manufacturing computations and summary tables for different preparations; and detailed descriptions of basic production equipment. STI

97

[Handbook on equipment for the dairy industry.]

Spravochnik po oborudovaniyu predpriyatii molochnoi promyshlennosti. [Book]

Tombaev, N. I.

543pp. (1972) [29 ref. Ru] Moscow, USSR. Izdatel'stvo Pishchevaya Promyshlennost'. Price 2.26r

This book contains the following chapters: Equipment for milk reception and milk product storage (pp. 3-47); Handling and conveying systems (pp. 47-70); Pumps and pipelines (pp. 71-128); Equipment for mechanical treatment of milk and milk products (pp. 128-186); Equipment for heat treatment of milk and milk products (pp. 186-244); Apparatus and means of automation of technological processes (pp. 244-274); Equipment for the production of cheese, casein, lactose and milk protein paste (pp. 312-387); Equipment and machinery for concentrated and dried milk production (pp. 387-418); Equipment for ice cream manufacture (pp. 418-443); Milk bottling equipment and dairy products packaging equipment (pp. 444-511); and Cleaning equipment in dairy plants (pp. 511-535). STI

98

Symposium: processing agricultural and municipal wastes. [Book]

Inglett, G. E. (Editor)

vii + 221pp. ISBN 0 87055 139 6 (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price US \$15.00 Foreign \$16.00

The following review articles are included in these proceedings of a symposium held in New York in Aug. 1972: Processing fruit and vegetable wastes, by J. W. White, Jr. (pp. 129-142, 32 ref.); Microbial products from food industry wastes, by N. Kosaric (pp. 143-160, 37 ref., canning, meat and poultry processing, dairies and breweries); Microbial protein production from cellulosic wastes, by C. J. Rogers & D. Spino (pp. 161-171, 16 ref.). MJB

99

Dairy product packaging. [Book]

Jones, A.

202pp. (1972) [many ref. En] Bickley, Kent, UK, Wolpert & Jones (Studies) Ltd.

This publication gives up-to-date information on production, packaging and marketing aspects of milk products. The first section (pp. 3-64) deals

generally with characteristics, manufacturing processes and production/consumption trends of butter and fats, cheese, yoghurt, cream, concentrates (evaporated and sweetened condensed milk, concentrated UHT milk, dried milk, egg products), ice cream, and protein products. The 2nd section (pp. 65-155) gives data on packaging methods, equipment and materials under the headings machinery, plastics, aerosols, Al foil, glass, tin cans, refrigerated transport/storage, package innovation, and labels. The last section (pp. 156-182) deals with marketing of milk products under the headings UK/EEC relationship, UK market, supermarkets and developing countries. This section is followed by an account on the disposal of packaging materials (pp. 183-186). A reference list with addresses of companies manufacturing packaging equipment etc. is included. [See also FSTA (1972) 4 12F581 for a similar publication on milk packaging.] FL

100

[**Comparison between bottles and single-service packaging for milk products.**] Vergelijking tussen flessen- en eenmalige verpakkingen voor melkprodukten. [Book]

Braakman, G. A.

31pp. (1973) [20 ref. NI]

In this mimeographed review held by the Nederlands Instituut voor Zuivelonderzoek, Ede, Netherlands (1973/6), the author discusses the advantages and disadvantages of the various types of packages used for milk and milk products on the basis of data from the literature. In particular, comparisons are made between glass bottles and single-service packages, from the standpoints of quality, costs and marketing. ADL

BEVERAGES — WINE, SPIRITS, TEA,

COFFEE, WATER

101

[**The brewing industry.**] Pivovarstvi. [Book]

Hlavacek, F.; Lhotsky, A.

538pp. (1972) [many ref. Cs, de, ru, en] Prague, Czechoslovakia, SNTL - Nakladatelstvi technicke literatury Price 54 Kcs

Beer production technology is described in detail as well as machinery and equipment. The book includes the following chapters: Raw materials (pp. 21-99); Production of young beer (pp. 101-254); Fermentation and final fermentation (pp. 255-379); Filling beer into transport containers (pp. 380-469); and Finished beer (pp. 471-519). STI

102

[**The brewing industry.**] Uchet pivovarennogo proizvodstva. [Book]

Belinskaya, E. A.; Dynyak, S. A.; Babinovich, S. D.

118pp. (1973) [Ru] Moscow, USSR; Izdatel'stvo Pishchevaya promyshlennost'. Price 0.46 r

This book gives a detailed account of all factors

involved in the brewing industry, from raw materials to packaging. Examples of losses, raw material costs, barley consumption for malt production, malt consumption for beer production and others are given. Manufacturing equipment and apparatus for check measurements are described. A method of accounting for residues of malt and beer in a stage of unfinished manufacture is described. STI

103

[**Selected works on the chemistry and technology of wine, sparkling wine and brandy.**] Izbrannye raboty po khimii i tekhnologii vina, shampanskogo i kon'yaka. [Book]

Agabal'yants, G. G.

615pp. (1972) [many ref. Ru] Moscow, USSR, Pishchevaya Promyshlennost' Price 4.36 r

This practically oriented book, which is compiled from the work of the leading Soviet oenologist, G. G. Agabal'yants, is divided into the following sections: Analytical methods for wine (pp. 9-240); The technology of wine and fruit juice production (pp. 241-378); Chemistry and technology of sparkling wines (pp. 379-566); and Technology of brandy (pp. 567-612). HBr

104

[**Biochemistry and technology of red wines.**]

Biokhimiya i tekhnologiya krasnykh vin. [Book]

Valuiko, G. G.

295pp. (1973) [Ru] Moscow, USSR; Izdatel'stvo Pishchevaya promyshlennost'. Price 1r

Basic types of red wines are reviewed technologically. Theoretical questions, dealing with changes in anthocyanins and tannins during the manufacture of different kinds of red wine (table, semi-dry, dessert, champagne-type) are discussed. White wines manufactured by the same technology as red wines are also discussed and the detailed technology is given. Basic machinery used in red wine production is described. STI

105

[**Soft drink manufacture.**] [Book]

Gillies, M. T.

Food Technology Review, Noyes Data Corporation

No. 8, x+336pp. ISBN 0 8155 0507 8 (1973)

[En] Park Ridge, New Jersey, USA, Noyes Data Corp. Price \$36.00

The information in this book is based on US patents since 1960, which relate to the manufacture of soft drinks. The Table of contents is organized in such a way as to serve as a subject index. The following chapters are included: Apparatus for producing carbonated beverages (pp. 2-51); Carbonated beverages (pp. 52-94); Acidulants for citrus drinks (pp. 95-137); Additives for citrus drinks (including sweetening agents, colouring agents, clouding agents, pulping agents, flavouring compositions, flavour enhancers, clarifiers, stabilizers) (pp. 138-213); Citrus drink production (pp. 214-233); 'Slush drinks'

(carbonated and non-carbonated) (pp. 234-272); Miscellaneous beverages (fruit flavoured, fruit and milk drinks, citrus drink containing liquorice, beverages containing soybeans, maple sap drinks) (pp. 273-307); and Miscellaneous packaging (pp. 308-331). Company, inventor and patent number indexes are provided. VJG

106

[Research and development in fruit juice technology in Hungary.] Forschungs- und Entwicklungsergebnisse auf dem Gebiet der Fruchtsafttechnologie in Ungarn.

Kardos, E.

Flüssiges Obst 41 (5) 176-180 (1974) [19 ref. De] [Forschungsinst. für Konserven- und Paprikaind., Budapest, Hungary]

This illustrated article covers the following topics from Hungarian literature data: juice extraction (by diffusion or pressing); determination of residence time in evaporators; juice concentration by reverse osmosis; mechanical equipment; and publication of book on fruit and vegetable juices. SKK

107

Coffee - origin and use. [Book]

Sivetz, M.

65pp. (1974) [En] Corvallis, Oregon, USA; Coffee Publications

The information in this booklet is arranged under the following headings: Introduction (pp. 4-5); Coffee growing countries (pp. 6-14); World commerce (pp. 15-19); Roasting (pp. 20-23); Grinding (pp. 24-25); Packaging (pp. 26-27); Cultural uses of coffee beverages and flavours (pp. 28-33); Physiological effects (pp. 34-38); Brewing coffee beverage (pp. 39-46); Sales and marketing (pp. 47-51); and Instant coffees (pp. 52-58). An appendix is included which gives details of the National Coffee Association, Pan American Coffee Bureau, US Military and other agencies and also includes a bibliography. Over 100 illustrations are included. VJG

FRUIT AND VEGETABLES

108

Vegetables in South-East Asia. [Book]

Herklots, G. A. C.

xii + 525pp. ISBN 0 04 635008 X (1972) [many ref. En] London, UK, George Allen & Unwin Ltd. Price £3.75

This comprehensive book on tropical vegetables is primarily concerned with South-East Asia but should be of considerable value throughout the tropics. It presents an account of the soils, fertilizers, pests and climate of the area and considers the nutritive value of the vegetables. Origins, botanical relationships, cultivation and uses of the vegetables are also described. The following chapters are included: Basic principles' (pp. 11-33); The physical, chemical and biological

properties of the soil (pp. 34-42); Essential elements and fertilizers (pp. 43-76); Climate (pp. 77-89); Pests, diseases, weeds and their control (pp. 90-107, 8 ref.); Food values of vegetables (pp. 108-126); Salads, spinaches and other greens (pp. 127-181); Cabbages (pp. 182-224); Beans and peas (pp. 225-272); Cucurbits (pp. 273-349); Fruits other than cucurbits (pp. 350-386); Bulbs, roots and tubers (onions, aroids and yams, major crops, minor crops) (pp. 387-478); Market vegetables (herbs and spices, water plants, miscellaneous) (pp. 479-507). A 12pp. bibliography is included. VJG

109

[Plant protection in vegetable production.]

Pflanzenschutz im Gemüsebau. [Book]

Crüger, G.

320pp. ISBN 3 8001 5111 1 (1972) [many ref. De] Stuttgart, Federal Republic of Germany, Verlag Eugen Ulmer Price DM 58.00 [Inst. für Gemüsekrankheiten der Biol. Bundesanstalt für Land- und Forstwirtschaft, Brühl, Federal Republic of Germany]

This well-produced book, Vol. 10 in the series "Handbook for Commercial Gardeners", is divided into 3 basic sections: Causes of disease, pathogens, weeds and pests (pp. 9-32); Diseases and pests of individual varieties of vegetable (covering leaf vegetables, root vegetables, *Allium* spp., fruit/vegetables, perennials and miscellaneous) (pp. 33-237); and Plant protection (pp. 239-284). The 16pp. list of references is divided by subject and individual vegetable or group of vegetables; a 3pp. glossary of technical terms and abbreviations and a 15pp. index are included. The book has been updated (as of autumn 1973) by inclusion of a 6pp. list of amendments of regulations covering permissibility of individual plant protection agents. HBr

110

The blanching of vegetables and fruits. [Booklet]

Voirol, F.

16pp. (1972) [37 ref. En] London, UK, Roche Products Ltd.

The following aspects are considered: methods of blanching; enzymes activity in cut vegetables and fruits; ascorbic acid and enzymatic oxidation systems in blanching; blanching procedures for some vegetables and fruits (potatoes and potato products, spinach, cauliflower, sauerkraut, mushrooms, green vegetables, apples and pears, cherries, peaches and plums); and prepared wholesale vegetables and fruits (for restaurants, schools, canteens and general catering). VJG

111

Dehydration of fruits and vegetables. [Book]

Torrey, M.

Food Technology Review, Noyes Data Corporation 13, xi + 287pp. ISBN 0 8155 0527 2 (1974) [En] Park Ridge, New Jersey, USA, Noyes Data Corp. Price \$36.00

This book is based on US patents since the early 1960's relating to the dehydration of fruit and vegetables. The information is arranged under the

following headings: General techniques (pp. 3-65); Dry fruit and vegetable juices (pp. 66-81); Concentrated fruit and vegetable juices (pp. 82-109); Fruits (including apples, bananas, pumpkin, sulphured fruits, dried fruits for baking mixes, fruit for breakfast cereals, fruit-cereal baby food) (pp. 110-144); Vegetables (including beans, Brussels sprouts, carrots, corn, onions, peas, soup mixes, sweet potato, tomatoes, water chestnuts) (pp. 145-188); and Potatoes (mashed potatoes, granules, flakes, powder, diced potatoes, French fries, hash browns) (pp. 189-279). Company, inventor and patent number indexes are included. VJG

112

Cassava in Ghana. [Book]

Doku, E. V.

v+44pp. (1969) [40 ref. En] Accra, Ghana; Ghana Universities Press. Price NC 1.00 [Dept. of Crop Sci., Fac. of Agric., Univ., Accra, Ghana]

This book gathers together information on cassava under the following chapter headings: Origin and dissemination (pp. 1-2, 5 ref.); Classification (p. 3); Botany (pp. 4-5, 2 ref.); Life history (pp. 6-7); Local varieties (pp. 8-11, 2 ref.); Breeding and selection (pp. 12-18, 9 ref.); Pests and diseases (pp. 19-22, 9 ref.); Cassava in Ghanaian agriculture (pp. 23-31, 9 ref.); Uses of cassava (pp. 32-34); and Nutritional considerations (pp. 35-38, 4 ref.). 4 appendices and 13pp. of illustrations are included. VJG

113

Crop and product digest. No. 2. Root crops.

Kay, D. E.

Crop and Product Digest, Tropical Products

Institute xxxv+245pp. ISBN 0 85954 019 7 (1973) [many ref. En] London, UK, Tropical Products Institute. Price £1.50

This book seeks to assemble basic data on root crops with a view to assisting in the selection of possible crops for cultivation in a given set of geographic and economic circumstances. The book should also prove useful for general reference purposes. The information presented includes nomenclature, cultivation conditions, planting procedure, pests and diseases, harvesting, yield, products and their uses, processing, and trends in world supply, demand and prices. The entries are arranged alphabetically under the first common name of the plant. Rootcrops covered are: African yam bean, anu, arracacha, arrowhead, cassava, chavar, Chinese water chestnut, chufa, E. Indian arrowroot, elephant yam, false yam, giant taro, hausa potato, Jerusalem artichoke, kudzu, lotus root, maca, oca, potato, Queensland arrowroot, radish, shoti, swamp taro, sweet potato, tannia, taro, topee tambo, ullucu, yacon, yams (*Dioscorea* spp.) and yam bean. [See also FSTA (1972) 4 11N534.] VJG

114

The use of fungi as food and in food processing. [Book]

Gray, W. D.

v+113pp. (1970) [348 ref. En] Cleveland, Ohio, USA; Chemical Rubber Co. Price \$13 [Northern Illinois Univ., DeKalb, Illinois, USA]

The aim of this book, which is one of the CRC Monoscience Series, is to bring together information linking mycology (other than the involvement of fungi in food spoilage) to the food industry. The review is divided into sections on Direct use of fungi as food (mushrooms as human food, fungi as animal food); Use of fungi in food processing (cheese, meat, oriental fungus-processed foods); and Potential additional uses of fungi as food (mycelia of fleshy fungi, mould type mycelia, myxomycete plasmodia). The final section is devoted to toxic substances produced by fungi and covers toxicoses caused by species of *Stachybotrys*, *Aspergillus*, *Penicillium*, *Pythomyces*, *Fusarium*, *Cladosporium*, *Alternaria* and *Mucor*, as well as the widely investigated aflatoxin. CDP

115

[The tomato.] A paradicsom. [Book]

Somos, A.

408pp. (1971) [many ref. Hu, ru, en] Budapest, Hungary, Akademiai Kiado. Price Ft 78

This well-produced book deals mainly with botanical, developmental, cultivation, breeding and disease aspects of the tomato, but also has a section (pp. 58-77) covering the nutritional role of tomatoes, and their chemical composition. It lists the chapter headings and sections in English and Russian, and gives 6-pp. summaries in each of these languages. HBr

116

Tomato paste and other tomato products. [Book]

Goose, P. G.; Binsted, R.

Second edition viii+270pp. ISBN 0 900379 11 1 (1973) [67 ref. En] London, UK, Food Trade Press Ltd. Price £6.00

The general layout of this second edition has not been greatly changed but some parts have been expanded and others condensed in order to include as much useful information as possible. A new chapter has been included on the cultivation of tomatoes for processing. It contains information of particular value when growing tomatoes in tropical and sub-tropical areas. Chapters included are: The cultivation of tomatoes for processing (pp. 1-48); Methods of manufacture and equipment used in the production of tomato paste (pp. 49-116); Other tomato products - Tomato juice (pp. 117-124), Canned peeled tomatoes (pp. 125-139), Tomato powder (pp. 139-150), Tomato ketchup (pp. 151-155); Cleaning of plant in tomato paste and products factories (pp. 156-169); Quality evaluation of tomato paste (pp. 170-217); Handling of tomato paste as an ingredient (pp. 218-225); Inspection of tomato paste factories (pp. 226-230); Standards of identity and quality specifications (pp. 231-247); Tomatoes, tomato paste and other international movements (pp. 248-259). A bibliography (pp. 260-263) and a short glossary of terms used in tomato paste commerce (pp. 264-265) have been included. VJG

[Venezuelan bibliography of grain legumes.]

Bibliografía Venezolana de leguminosas de grano. [Book]

Barrios G. A.; Ramos V., D. (Venezuela, Ministerio de Agricultura y Cria) 44pp. (1973) [Es] Maracay, Venezuela; Centro Nacional de Investigaciones Agropecuarias

This bibliography, covering work carried out in Venezuela, is divided by product, as follows: pea (*Pisum sativum* L.), sword bean (*Canavalia ensiformis* L.), kidney bean (*Phaseolus vulgaris* L.), cowpea (*Vigna sinensis* Endl), mung bean (*Phaseolus aureus* and *P. mungo*), lablab bean (*Dolichos lablab*), broad bean (*Vicia fabae* L.), lentil (*Lens esculenta* Moench), pigeon pea (*Cajanus cajan* (L.) Millsp.), soybean (*Glucine max* (L.) Merr.) and lima bean (*Phaseolus lunatus* L.). A general section is also included. The bibliography includes a 3-pp. author index and a 4-pp. subject index. HBr

117

The grapefruit, its composition, physiology, and products. [Book]

Sinclair, W. B. viii + 660pp. (1972) [many ref. En] Berkeley, Univ. of California, Agricultural Publications. Price \$15 [Dept. of Biochem., Univ., Riverside, California, USA]

This book should be of interest to botanists, nurserymen, growers, shippers, biochemists, dietitians and processors. The author comments on the work of others and also incorporates a vast amount of his own original work on the grapefruit. The information is arranged under the following chapter headings: Origin and history of the grapefruit (including trends in production and consumption, imports and exports (pp. 1-61); Composition of the edible portions (pp. 62-198); Composition of peel, rag and seeds (pp. 200-280); Factors affecting quality, flavour, yield and maturity (pp. 281-425); Post-harvest changes in grapefruit (pp. 426-501); Grapefruit by-products (including citrus molasses, essential oils as commercial products, pectin, preserved products, fermentation of juices and waste liquors, naringin, grapefruit seed by-products, and citrus waste disposal) (pp. 502-551); and Grapefruit processing - general methods (pp. 552-588). 187 figures and 195 tables give detailed data to supplement the text. A bibliography (pp. 589-629) is included. VJG

CHOCOLATE

118

Pests of cocoa. [Book]

Entwistle, P. F. xxiv + 779pp. ISBN 0 582 46657 1 (1972) [many ref. En] London, UK, Longman Group Ltd. Price £15.00 [Unit of Invertebrate Virology, Natural Environment Res. Council, Oxford, UK]

This book which is part of the Tropical Science Series, brings together all that is currently known about the insect pests of cocoa. The first 3 chapters:

The cocoa tree (pp. 1-17, 21 ref.); The cocoa tree and its insect fauna (pp. 18-43, 79 ref.); and Control of cocoa insects (pp. 44-75, 74 ref.) give an introduction to the biology and economic significance of the cocoa tree, consider the origins of its pests and assess the financial and general aspects of its attack by insects. Cultural, biological and chemical methods of controlling the insects are considered. The insects are then considered in detail under 19 chapter headings arranged taxonomically under families. Other chapters include: The entomology of cocoa virus diseases (pp. 170-220, 118 ref.); Pollination (pp. 448-473, 60 ref.); Other animal pests of cocoa (pp. 652-661, 35 ref.); and Pests of cocoa in storage (pp. 662-667, 15 ref.). 4 appendices are included: A guide to pest identification in the field (pp. 668-675); Insects feeding on *Theobroma cacao* (pp. 676-726); Conversion factors (p. 727); and Supplementary bibliography (pp. 728-729). VJG

SUGARS, STARCHES

119

Carbohydrate Chemistry - VI. Plenary lectures presented at the VIth International Symposium on Carbohydrate Chemistry held at Madison, USA, 14-18 August 1972. [Book]

International Union of Pure & Applied Chemistry 131-208pp. ISBN 0 408 70525 6 (1973) [many ref. En] London, UK, Butterworths

The history of the marketing of carbohydrates, including cane sugar, glucose, and other specialist sugars is reviewed. JN

120

[Ventilation of sugar beet pits.] Ventilatsiya kagatov sakharnoi svely. [Book]

Borodyanskii, N. A. 159pp. (1972) [105 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya promyshlennost'. Price 0.55 r

This book deals with the following problems: Methods of sugar beet storage in aerated pits (pp. 5-23); Aerodynamics of the aeration systems (pp. 23-76); Heat and moisture exchange during the aeration of sugar beet pits (pp. 76-91); Economic lay-outs and efficient systems of sugar beet pits ventilation (pp. 91-129); and Ventilation of sugar beet pits in sugar factories (pp. 129-155). STI

121

[Extraction of sugar from beet.] Protsess ekstrakttsii sakhara iz svely. [Book]

Lysyanskii, V. M. 221pp. (1973) [Ru] Moscow, USSR; Pishchevaya promyshlennost'. Price 1.08r

The monograph deals with the theory of one of the basic processes in the sugar industry - the extraction of sugar from beet. The methods for process computations are studied in detail and a critical summary of present ideas on extraction is given. The method of interval-interaction computation of the extraction process is described and based on this method. Research into kinetics

coeff. was carried out in laboratories and under operational conditions. Some methods of improving extraction are discussed. Monograms for analyzing and computing the process are given. Regimes with corresponding economic value are recommended together with advice on the improvement of existing equipment. STI

122

[Physics and chemistry of sugar beet as the basis of processing methods.] Physik und Chemie der Zuckerrübe als Grundlage der Verarbeitungsverfahren. [Book]

Vukov, K.

458pp. (1972) [1349 ref. De] Budapest, Hungary, Akademiai Kiado. [Forschungsinst. der Ungarischen Zuckerind., Hungary]

This book is divided into 4 sections: Physical and chemical characteristics of sugar beet (pp. 21-97); The effect of various factors on the physical and chemical characteristics of sugar beet (pp. 99-302); Processing and the physical and chemical properties of sugar beet (pp. 303-392); and an appendix, Description of some little-known methods for testing and analysis of sugar beet (pp. 393-407). AJDW

123

[Calculation of the products of sugar industry.] Raschet produktov sakharnogo proizvodstva. [Book]

Mikhatova, G. N.; Kaganov, I. N.

159pp. (1973) [Ru] Moscow, USSR; Izdatel'stvo Pishchevaya promyshlennost'. Price 0.37r

Changes in the properties of sugar beet influence the technological processes at different stages of manufacture, the quality of the product at intermediate and final stages and the production capacity of equipment. It is necessary to know the effects of these factors on calculation of the quantity of processed products/100 kg raw beet. Examples of calculation of sugar products under existing regimes of processing sugar beet of different quality are given. STI

124

[Principles of heat and mass exchange during sucrose crystallization.] Osnovy teorii teplo- i massoobmena pri kristalizatsii sakharozы. [Book]

Popov, V. D.

319pp. (1973) [Ru] Moscow, USSR; Pishchevaya promyshlennost'. Price 1.66r

Basic theoretical ideas with experimental values for processes taking place during industrial crystallization of sucrose (vacuum evaporation and cooling in mixing crystallizers) are given. The values are generalized for batch and continuous equipment. Important contents include: Formulation of ideas on kinetics of crystallization as a complex of mass and energy exchange processes; Quantitative laws on factors affecting crystallization; A method of computation of basic crystallization parameters and crystallizer sizes; A diagram and design of an automatically controlled continuous crystallizer. The constructions and equipment given are verified industrially and basic problems of heat and mass exchange are explained. STI

125

Confections and candy technology.

Schwartz, M. E.

Food Technology Review, Noyes Data Corporation 12, xii + 338pp. ISBN 0 8155 0524 8 (1974) [En] Park Ridge, New Jersey, USA; Noyes Data Corp. Price \$36.00

This book is based on US patents since the early 1960s relating to the manufacture of confections and candy. The information is arranged under the following headings: Candies (including core formulations, hard candies, marshmallows, fudge, gelled confections, aerated confections, dietetic sorbitol formulations) (pp. 2-63); Production of confectionery ingredients (pp. 64-98); Confectionery additives (pp. 99-134); Frozen desserts (pp. 135-176); Milk puddings (pp. 177-197); Gelled desserts (pp. 198-227); Icings (pp. 228-254); Whipped toppings (pp. 255-272); Jelly (pp. 273-281); Novelty products (pp. 282-305); and Chewing gum (pp. 306-330). Company, inventor and patent number indexes are included. VJG

126

Symposium: sweeteners. [Book]

Inglett, G. E. (Editor)

ix + 240pp. ISBN 0 87055 153 1 (1974) [many ref. En] Westport, Connecticut, USA; AVI Publishing Co. Inc. Price \$20.00 (US), \$21.00 (Foreign) [Cereal Properties Lab., N. Regional Res. Lab., USDA, Peoria, Illinois, USA]

Papers presented at a Symposium on Sweeteners held at the American Chemical Society meeting in Dallas, Texas, on April 9-13, 1973, and sponsored by the Agricultural and Food Chemistry and Carbohydrate Divisions include: Sweeteners: new challenges and concepts, by G. E. Inglett (pp. 1-9, 47 ref.); Biophysics of sweetness, by L. M. Beidler (pp. 10-22, 31 ref.); Sensory perception of sweetness, by R. M. Pangborn (pp. 23-44, 86 ref.); Sweetener economics, by B. J. Walter (pp. 45-62, 18 ref.); Sucrose, by A. J. Vlitos (pp. 63-73, 53 ref.); Sucrose chemicals and their industrial uses, by P. K. Chang (pp. 74-77, 8 ref.); Corn sweetener industry, by J. D. Commerford (pp. 78-86, 4 ref.); High fructose corn syrup, by J. M. Newton & E. K. Wardrip (pp. 87-96, 21 ref.); Sweetness and sensory properties of dextrose-laevulose syrup, by G. A. Brooks, M. O. Warnecke & J. E. Long (pp. 97-110, 43 ref.); Maple syrup and honey, by J. W. White, Jr. & J. C. Underwood (pp. 111-130, 45 ref.); Synthetic sweeteners: past, present, and future, by K. M. Beck (pp. 131-140, 12 ref.). [Continued in following abstr.] VJG

127

Grain starch utilization study. [Book]

McNicol, D. G.; Knechtel, K. T.; Marshall, T.; Metcalfe, D. R.; Mills, A. S.; Wood, P. 155pp. (1972) [95 ref. En] Ottawa, Canada, Canadian Wheat Board [Dept. of Ind., Trade & Commerce, Ottawa, Canada]

This report of a committee appointed by the Minister responsible for the Canadian Wheat Board reviews and assesses the current capability of the Canadian industry to produce and market starch

within the existing domestic and international environment, and identifies and recommends areas for specific action to improve this position. Sections in the report are: Introduction (p. 1); Terms of reference (pp. 2-3); The Canadian starch industry (pp. 4-43); which discusses background, products produced by the Canadian starch industry, Canadian market for starch and starch-derived products, and raw material usage; International situation (pp. 44-59), covering world production, sources of starch, world trade, and a review of specific countries; Starch chemistry & technology (pp. 60-89), covering starch, sweeteners from starch, other sweeteners, and Canadian research and development; Canadian government regulations (pp. 90-94); Outlook for starch industry (pp. 95-100), which discusses the demand in existing markets, potential new markets, and raw material requirements in 1978; and Possibilities for increasing the starch production of the principal Canadian field crops (pp. 101-116), such as cereal grains, potatoes, field peas, horse beans and Jerusalem artichokes. The report is concluded by a summary, conclusions and recommendations, a glossary, appendices, and a bibliography and list of persons contacted. JA

128

Edible gums and related substances.

Lawrence, A. A.

Food Technology Review, Noyes Data Corporation

No. 9, xii + 339pp. ISBN 0 8155 0511 6 (1973)

[En] Park Ridge, New Jersey, USA, Noyes Data Corp., Price \$36.00

The information in this book is based on US patents since 1962, relating to the manufacture and application of edible gums and related substances. The Table of contents is organized in such a way as to serve as a subject index. Chapters included are: Galactomannans (pp. 3-33); Arabinogalactan (pp. 34-45); Gums from other land plants (tragacanth, tamarind polysaccharide, gum arabic etc.) (pp. 46-65); Pectins (preparation and uses) (pp. 66-97); Carrageenan-containing extracts from Gigartiniaceae and Solieriaceae (pp. 98-128); Alginates (preparation, improving properties and uses) (pp. 129-164); Material from other marine sources (agar and Furcellaria extract) (pp. 165-175); Carboxymethylcellulose (pp. 176-206); Other cellulose ethers (pp. 207-233); Xanthomonas hydrophilic colloid (pp. 234-279); Other microbial polysaccharides (pp. 280-288); Cyclodextrins (pp. 289-311); and Miscellaneous gums (hydrophilic colloids, starch gels) (pp. 312-333). Company, inventor and patent number indexes are included. VJG

CEREALS AND BAKERY PRODUCTS

129

National grain policies. [Book]

Food & Agriculture Organization

v + 206pp. (1973) [En] [Rome, Italy]

This 13th annual bulletin on national policies

and measures affecting grains reproduces official statements submitted by national authorities and is the 2nd such bulletin to contain full policy statements covering all aspects of current national grain policies. This bulletin is designed as a basic reference document which will be updated by annual supplements describing current developments in policies and containing additional statements from countries not covered in this issue. This issue covers policy measures in force in 1971/1972 in 45 countries. JA

130

[Grain and grain products.] Tovarovedenie zerna i produktov ego pererabotki. [Book]

Myasnikova, A. V.; Rall', Yu. S.; Trisvyatskii, L. A.; Shatilov, I. S.

399pp. (1971) [14 ref. Ru] Moscow, USSR. Izdatel'stvo Kolos. Price 1.01 r.

This book deals with methods of grain evaluation and with quality characteristics. The chapters are: General problems concerning different types of grain (pp. 9-101); Principles of grain selection and grain cultivation (pp. 104-130); Grain chemistry (pp. 132-173); Bread grain and buckwheat (pp. 173-249); Flour and groats (pp. 250-283); Beans, oilseeds and seeds of fodder grasses (pp. 286-330); Fodder mixtures (pp. 332-371); and Laboratory organization (pp. 376-393). STI

131

Triticale: first man-made cereal. [Book]

Tsen, C. C. (United States of America, American Association of Cereal Chemists; International Union of Food Science & Technology) (Editor) xii + 291pp. ISBN 0 913250 06 6 (1974) [many ref. En] St Paul, Minnesota, USA, American Assoc. of Cereal Chemists Inc. Price \$ 15.00 [Dept. of Grain Sci. and Ind., Kansas St. Univ., Manhattan, USA]

The papers in this book were presented at a symposium on triticale, sponsored jointly by the American Association of Cereal Chemists and the International Union of Food Science and Technology, and held in conjunction with the 57th annual AACC meeting, held on 4-8 Nov. 1973 in St. Louis, Missouri. The symposium consisted of the following 7 parts, each part containing several papers: Triticale in various countries (pp. 1-33); Breeding and genetics (pp. 34-89); Kernel and endosperm structures, and grade standards of triticale (pp. 90-126); Biochemistry (pp. 127-200); Nutrition (pp. 201-222); Triticale as food source (pp. 223-270); and Triticale utilized as feeds (pp. 271-291). Individual papers were: Triticale and developing nations, by J. H. Hulse (pp. 2-7, 1 ref.); Triticale production in the United States, by K. L. Lebsack (pp. 8-14); Cultivation and problems of triticale in Hungary, by A. Kiss (pp. 15-20, 9 ref.); Triticale research in Japan, by K. Tsunewaki (pp. 21-33, 13 ref.); A review of the historical development of triticale, by E. N. Larter (pp. 35-52, 88 ref.); Highlights of recent triticale development, by F. J. Zillinsky (pp. 53-55); Hexaploid triticale: past, present and future, by B.

C. Jenkins (pp. 56-61, 6 ref.); Cytological stability of triticale, by T. Tsuchiya (pp. 62-89, 86 ref.); Scanning electron microscopy studies of triticale and its parental species, by B. L. Dronzek, R. A. Orth & W. Bushuk (pp. 91-104, 14 ref.).
[Continued in following abstr.] JA

132

Triticale: first man-made cereal. [Book]
Tsen, C. C. (United States of America, American Association of Cereal Chemists; International Union of Food Science & Technology) (Editor)
xii + 291pp. ISBN 0 913250 06 6 (1974) [many ref. En]

[Continued from preceding abstr.] The structure of the developing and mature triticale kernel, by D. H. Simmonds (105-121, 16 ref.); Triticale standards in the market place, by R. D. Strand (pp. 122-126); Proteins of triticale: chemical and physical characteristics, by W. Bushuk (pp. 128-136, 6 ref.); Amino acid composition, protein fractions and baking quality of triticale, by S. R. Ahmed & C. E. McDonald (pp. 137-149, 22 ref.); Protein and lysine content of improved triticale, by E. Villegas & R. Bauer (pp. 150-156, 6 ref.); The proteolytic enzyme system of triticale, by R. L. Madl & C. C. Tsen (pp. 157-167, 13 ref.); Trypsin and chymotrypsin inhibitors of triticale, by R. L. Madl & C. C. Tsen (pp. 168-182, 21 ref.); A review of the starch of triticale, by B. L. d'Appolonia (pp. 183-190, 4 ref.); Triticale lipids, by O. K. Chung & C. C. Tsen (pp. 191-200, 12 ref.); Triticale and human nutrition, by C. Kies & H. M. Fox (pp. 202-211, 14 ref.); A plant breeding dimension to evaluation of triticales with weanling meadow voles (*Microtus pennsylvanicus*), by F. C. Elliott (pp. 212-222, 20 ref.). [Continued in following abstr.] JA

133

Triticale: first man-made cereal. [Book]
Tsen, C. C. (United States of America, American Association of Cereal Chemists; International Union of Food Science & Technology) (Editor)
xii + 291pp. ISBN 0 913250 06 6 (1974) [many ref. En]

[Continued from preceding abstr.] Milling triticale into flour, by E. P. Farrell, C. C. Tsen & W. J. Hoover (pp. 224-233, 6 ref.); Bakery products from triticale flour, by C. C. Tsen (pp. 234-242, 16 ref.); Food product utilization of Colorado-grown triticales, by K. Lorenz & J. R. Welsh (pp. 243-251, 8 ref.); Environmental effects on utilization and agronomic performance of Colorado-grown triticales, by J. R. Welsh & K. Lorenz (pp. 252-260, 8 ref.); Malting of triticale, by Y. Pomeranz (pp. 261-270, 5 ref.); Triticale as a feed, by G. L. Allee (pp. 272-279, 15 ref.); and Preparation and properties of triticale protein concentrates prepared by wet-processing of triticale bran, by R. M. Saunders, A. A. Betschart, M. A. Connor, R. H. Edwards & G. O. Kohler (pp. 280-281, 12 ref.). JA

134

Rice chemistry and technology. [Book]
Houston, D. F. (Editor)

517pp. (1972) [many ref. En] St. Paul, Minnesota, USA, American Assoc. of Cereal Chemists Inc. Price \$17 (AACC members), \$21.50 (others) [USDA, Berkeley, California, USA]

This book, volume IV in the monograph series of the American Association of Cereal Chemists Inc., has 2 main aims: to collect and present for the first time in a single work a series of reviews on rice chemistry and technology; and to provide an extensive bibliography that will permit direct access to the primary literature. Chapters are: Production and utilization of rice, by C. R. Adair (pp. 1-15, 45 ref.); The rice caryopsis and its composition, by B. O. Juliano (pp. 16-74, 233 ref.); Enzymes of rice, by T. Akazawa (pp. 75-101, 104 ref.); Criteria of rice quality, by B. D. Webb & R. A. Stermer (pp. 102-139, 76 ref.); Rough rice drying, by T. Wasserman & D. L. Calderwood (pp. 140-165, 68 ref.); Rough rice storage, by H. W. Schroeder & D. L. Calderwood (pp. 166-187, 56 ref.); Conventional rice milling in the United States, by G. C. Witte, Jr. (pp. 188-200, 19 ref.); Solvent extractive rice milling, by J. W. Hunnell & J. F. Nowlin (pp. 201-214, 10 ref.); Milled rice and changes during aging, by S. Barber (pp. 215-263, 102 ref.); Rice flours, by H. J. Deobald (pp. 264-271, 32 ref.); Rice bran and polish, by D. F. Houston (pp. 272-300, 119 ref.); Rice hulls, by D. F. Houston (pp. 301-352, 262 ref.). [Continued in following abstr.] JA

135

Rice chemistry and technology. [Book]
Houston, D. F. (Editor)

517pp. (1972) [many ref. En]
[Continued from preceding abstr.] Rice enrichment, by C. L. Brooke (pp. 353-357, 11 ref.); Parboiled rice, by F. Gariboldi (pp. 358-380, 49 ref.); Quick-cooking rice, by R. L. Roberts (pp. 381-399, 45 ref.); Rice breakfast cereals and infant foods, by S. F. Brockington & V. J. Kelly (pp. 400-418, 34 ref.); Canned rice foods, by E. E. Burns (pp. 419-427, 48 ref.); Fermented rice foods, by A. G. van Veen (pp. 428-431, 9 ref.); Rice brewing, by Y. Pomeranz (pp. 433-448, 46 ref.); and Sake, by Y. Nunokawa (pp. 449-487, 131 ref.). JA

136

[Modern baked goods production.] Sovremennoe khlebopekarnoe proizvodstvo. [Book]
Grishin, A. S.; Il'inskaya, T. N.; Zel'man, G. S.

192pp. (1973) [91 ref. Ru] Moscow, USSR, Pishchevaya Promyshlennost'. Price 0.77 r.

The 4 chapters of this book are entitled as follows: I. Biological and nutritional value of bread; II. Modern methods of bread production; III. The range of bread and bakery products manufactured in the USSR; and IV. The range of bread and bakery products manufactured abroad. Subjects discussed in Chapter II include methods of dough preparation and the use of mechanized

production lines for various types of bakery products. Chapter III includes detailed descriptions of Soviet bakery products made with whole milk and skim-milk, dried milk, whey and tvorog. ADL

137

[Textbook of bread manufacture. Vol. I.]

Spravochnik po khlebopekarnomu proizvodstvu.

Tom I. [Book]

Mikhelev, A. A.

542pp. (1972) [Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost'. Price 2.39 r

This book consists of 2 volumes, this first one dealing with equipment and heat management. It contains the following chapters: Capacity of bread baking plants (pp. 5-25); Handling and conveying equipment (pp. 25-154); Equipment for storage and treatment of flour and of auxiliary material (pp. 154-231); Equipment for dough preparation (pp. 231-306); Dough rising and dough forming machinery and machines for the manufacture of small bakery goods (pp. 306-343); Mechanical handling equipment for finished goods (pp. 343-382); Machinery for the production of special kinds of bakery goods (pp. 382-401); Bakery ovens (pp. 401-503); and Auxiliary devices for baking ovens (pp. 503-535). STI

138

[Textbook of bread manufacture. Vol. II. Raw materials, technology and production control.]

Spravochnik po khlebopekarnomu proizvodstvu.

Tom II. Syr'e, tekhnologiya i tekhnologicheskii kontrol' proizvodstva. [Book]

Roiter, I. M.

503pp. (1972) [40 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya promyshlennost'. Price 2.41 r

This second volume contains the following chapters: Raw material in bread manufacture (pp. 3-74); Quality of raw material and its determination (pp. 74-110); Quality of bread and baked goods (pp. 110-157); Technology of bread and baked goods manufacture (pp. 157-220); Activation of pressed yeasts and treatment of liquid yeasts (pp. 220-240); Preparation of wheat flour dough (pp. 240-270); Preparation of wheat dough using a shorter rising period (pp. 270-289); Preparation of rye flour dough and dough from mixed flour (pp. 289-311); Technological regimes for the manufacture of baked goods (pp. 311-391); Accelerated dough production (pp. 391-395); Application of quality improvers and convenience products (pp. 395-406); Various kinds of flour (pp. 406-411); Faults and defects of bakery goods (pp. 411-426); Manufacture of simple biscuits (pp. 426-435); Manufacture of fancy biscuits (pp. 435-446); Manufacture of other fancy baked goods (pp. 446-470); Control of finished goods (pp. 470-481); and Production process planning (pp. 481-493). STI

139

[Optimum planning of output in the confectionery and baking industries.] Optimal'noe planirovanie vypuska produktsii v konditerskoi i khlebopekarnoi

promyshlennosti. [Book]

Voronin, V. G.

78pp. (1973) [Ru] Moscow, USSR; Pishchevaya Promyshlennost' Price 0.26r

This pamphlet-type publication contains the following chapters: Improving planning by economic/mathematical methods (pp. 3-8); Production of economic/mathematical models (pp. 9-13); Optimum planning of range of output (pp. 14-40); Optimum product distribution (pp. 40-64); and Use of computers for optimization of output (pp. 64-78). HBr

FATS, GLYCERIDES, LIPIDS, OILS

140

The pathology of parenteral nutrition with lipids.

[Book]

Thompson, S. W.

935pp. ISBN 0 398 02748 X (1974) [many ref. En] Springfield, Illinois, USA, Charles C. Thomas Price \$42 [Subdiv. of Toxicology & Pathol., CIBA-GEIGY Pharmaceuticals Div., Summit, New Jersey, USA]

141

[Storage of edible fats.] Khranenie pishchevykh zhirov. [Book]

Khomutov, B. I.; Lovachev, L. N.

160pp. (1972) [286 ref. Ru] Moscow, USSR, Ekonomika. Price 0.42 r

Factors determining the keeping quality of edible fats during storage are discussed. Present theoretical knowledge on the chemical changes taking place during fat storage is presented. The book contains the following chapters: Theoretical principles of autoxidation of edible fats; Edible fats storage, and Methods of improving their keeping quality. STI

142

Rapeseed. Cultivation, composition, processing and utilization. [Book]

Appelqvist, L.-A.; Ohlson, R. (Editors)

x + 391pp. ISBN 0 444 40892 4 (1972) [many ref. En] Amsterdam, Netherlands, Elsevier Publishing Co. Price Dfl 175.00 [Div. of Physiol. Chem., Univ. of Lund, Sweden]

Many aspects of this important agricultural commodity, now rated fifth among the oilseed crops, are considered under the following chapter headings: Historical background, by L.-A. Appelqvist (pp. 1-8, 15 ref.); Production of and trade in rapeseed, by R. Ohlson (pp. 2-35, 6 ref.); Botany of rapeseed, by L. Bengtsson, A. von Hofsten & B. Löf (pp. 36-48, 15 ref.); Cultivation of rapeseed, by B. Löf (pp. 49-59, 24 ref.); Postharvest handling and storage of rapeseed, by L.-A. Appelqvist & B. Löf (pp. 60-100, 55 ref.); Plant breeding for improved yield and quality, by B. Löf & L.-A. Appelqvist (pp. 101-122, 68 ref.); Chemical constituents of rapeseed, by L.-A. Appelqvist (pp. 123-173, 175 ref.); Analysis of rapeseed oil, by U. Persmark (pp. 174-197, 132 ref.); Manufacture of rapeseed oil and meal, by

K. Anjou (pp. 198-217, 51 ref.); Processing of rapeseed oil, by R. Wettström (pp. 218-248, 88 ref.); Edible products from rapeseed oil, by U. Riiner & E. Honkanen (pp. 249-273, 84 ref.); Non-nutritional uses of rapeseed oil and rapeseed fatty acids, by R. Ohlson (pp. 274-287, 80 ref.); [Continued in following abstr.] VJG

143

Rapeseed. Cultivation, composition, processing and utilization. [Book]

Appelqvist, L.-A.; Ohlson, R. (Editors)
x+391pp. ISBN 0 444 40892 4 (1972) [many ref. En]

[Continued from preceding abstr.] Rapeseed lecithin, by U. Persmark (pp. 288-300, 40 ref.); Nutritional value of rapeseed oil, by E. Aaes-Jorgensen (pp. 301-353, 147 ref.); Nutritional value and use of rapeseed meal, by E. Josefsson (pp. 354-377, 85 ref.). 5 appendices are included: Important varieties of Brassica oil crops (pp. 379-380); Characteristics of rapeseed oil (p. 381); Recommended International Standard for edible rapeseed oil (pp. 382-384); Useful conversion factors (p. 385); and Centigrade-Fahrenheit conversion (pp. 386-387). VJG

MILK & DAIRY PRODUCTS

144

Lactation. A comprehensive treatise. Vol. III. Nutrition and biochemistry of milk/maintenance.

[Book]

Larson, B. L.; Smith, V. R. (Editors)
xiii+425pp. ISBN 0 12 436703 8 (1974) [many ref. En] New York, USA, London, UK, Academic Press [Dept. of Dairy Sci., Univ., Urbana, Illinois, USA]

The difficulties of the compilation and publication of multi-authorship, multi-volume treatises are highlighted by the appearance of this volume before volume 1 and 2, which will deal mainly with the physiology and biochemistry of the mammary gland and milk secretion. This 3rd volume includes the following reviews: The composition of milk, by R. Jenness (pp. 3-107, covering milk constituents, comparative composition of milk between species, and factors affecting the composition of cows' milk); Genetic variants of the milk proteins, by M. P. Thompson & H. M. Farrell, Jr. (pp. 109-134, including a review of models of the structure of casein micelles); General environmental contaminants occurring in milk, by M. Kroger (pp. 135-157, covering pesticides, PCBs, drugs and some metals); Physiological and biochemical aspects of the accumulation of contaminant radionuclides in milk, by F. W. Lengemann, R. A. Wentworth and C. L. Comar (pp. 159-215); Immunological problems of milk feeding, by S. Saperstein (pp. 257-280, dealing with the contribution of individual milk proteins to milk allergy); and Milk in human nutrition, by R. G. Hansen (pp. 281-308). JMD

[Problems of Austrian agriculture: foreign trade in dairy products.] Probleme der österreichischen Landwirtschaft: der milchwirtschaftliche Aussenhandel. [Book]

Mayrhofer, K.

81pp. (1971) [De] Vienna, Austria, Verlag des Österreichischen Gewerkschaftsbundes

A detailed investigation is made of the development and structure of Austria's foreign trade in milk and dairy products, from the time immediately after World War II when the industry began to re-establish itself up to 1970. In 1970 about 13 800 t of hard cheese were exported, about half going to the EEC area. The export of dried whole milk is also important, with the UK as the principal customer. Other important dairy exports are butter, dried skim-milk and soft cheese. A detailed account is presented of the problems caused for Austrian dairy export policy by the coming into force of the common dairy policy of the EEC. The situation regarding butter exports is particularly difficult. It is concluded that one of the most important steps for stabilizing the dairy markets would be consistent international co-operation and co-ordination between the various dairy exporting and importing countries, with regard to both production and marketing. [From World Agricultural Economics and Rural Sociology Abstracts 15, 4424.]

146

[Principles of economics and organization in the production of whole milk products.]

Osnovy ekonomiki i organizatsii proizvodstva tsel'nomolochnoi produktsii. [Book]

Feoktistov, A. M.; Vasil'eva, A. F.; Nikitina, M. K.
150pp. (1973) [Ru] Moscow, USSR, Pishchevaya Promyshlennost' Price 0.24 r

In the introductory chapter, the role of the dairy industry in the national economy of the USSR is discussed and information given on the structure of the 'whole milk' sector and plans for its expansion. Other chapters deal with the organization of manufacture and manufacturing processes, labour and remuneration, supplies of milk and materials to dairies and intra-plant accounting; planning of the production programme and labour; and production costs and financing of the plant. The book is intended for students at professional training establishments. FL

147

[Operating structure of the dairy industry on 31 December, 1970. I. Results for the Federal Republic of Germany.]

Betriebsstruktur der Molkereiwirtschaft. Stand: 31 Dezember 1970. I. Ergebnisse im Bundesgebiet. [Book]

Germany, Federal Republic of, Bundesministerium für Ernährung Landwirtschaft und Forsten
xxvii+315pp. (1973) [De]

Tables are given showing the detailed breakdown of the 1274 dairies and cheese factories in the German Federal Republic in 1970, by size group

(annual milk intake), by main type of activity (liquid milk dairies, butter factories, hard, semi-hard and soft cheese factories, etc.), by type of enterprise (co-operative, joint stock company, etc.) and by district [Land]. [See also FSTA (1973) 5 5D269.] ADL

148

[Safety precautions in the dairy industry.]

Tekhnika bezopasnosti na predpriyatiyakh molochnoi promyshlennosti. [Book]

Degtyarev, F. G.; Shevchenko, N. S.

108pp. (1973) [Ru] Moscow, USSR; Pishchevaya Promyshlennost' Price 0.17 r

This manual, approved by the Scientific Council of the USSR Council of Ministers for use in technical colleges and by factory workers, consists of the following main chapters: Organization of occupational safety (pp. 4-16); Occupational injuries and diseases (pp. 16-25); Technical safety and industrial public health requirements on the site and in factory and ancillary buildings (pp. 25-36); Technical safety requirements for ancillary plant operations (pp. 66-88); Safety of electrical installations (pp. 89-92); Personal hygiene and factory environment (pp. 92-96); First aid in accidents (pp. 96-101); and Fire precautions (pp. 101-106). SKK

149

Optimum feeding of dairy animals for meat and milk. [Book]

McCullough, M. E.

Ed. 2 xvi + 200pp. ISBN 0 8203 0239 2 (1973)

[63 ref. En] Athens, Georgia, USA, University of Georgia Press. Price \$4.95 [Animal Sci. Dept., Georgia Station, Experiment, USA]

The principles of animal nutrition, economics of milk and beef production and new techniques for calculating rations for dairy animals are summarized in the 2nd edition of this book, which includes chapters on: forages as feedstuffs; rumen fermentation; growth and fattening rations; optimum rations for milk production; cost and quality of feedstuffs; feed programming of optimum rations; meat production from dairy steers. The tables listing feed ingredients have been revised to include net and metabolizable energy, and a complete least-cost linear programme for milk and beef production has been added in an appendix. MEG

150

[Technology of milk and dairy products.]

Tekhnologiya moloka i molochnykh produktov.

[Book]

Rostrosa, N. K.

232pp. (1973) [9 ref. Ru] Moscow, USSR,

Pishchevaya Promyshlennost' Price 0.34 r

This textbook intended for technical teaching establishments and for the training of production workers contains the following chapters: Milk as the raw material for the manufacture of milk products (pp. 6-36); Technology of market milk,

cream and cultured milk products (pp. 36-84); Technology of ice cream (pp. 84-102); Technology of concentrated and dried milk products (pp. 102-136); Technology of butter (pp. 136-169); Technology of cheese (pp. 169-210); and Technology of casein, lactose and other products from whey (pp. 210-230). FL

151

An addition to the thirteenth edition of Standard methods for the examination of dairy products: single-service plastic vials for samples of raw milk and cream.

Marth, E. H.; Reinbold, G. W.; Marshall, R. T.; Mather, D. W.; Clark, W. S., Jr.; Dizikes, J. L.; Hausler, W. J., Jr.; Richardson, G. H.; Ullmann, W. W.

Journal of Milk and Food Technology 37 (3) 159

(1974) [2 ref. En] [Dept. of Food Sci., Univ. of Wisconsin, Madison, 53706, USA]

The proposed addition to this book [see FSTA (1974) 6 5P694] has now been approved, and will be incorporated into the 2nd printing of the edition. CDP

152

Cheese-making technology. [Book]

Schwartz, M. E.

Food Technology Review, Noyes Data Corporation

7, x + 336pp. ISBN 0 8155 0502 7 (1973) [En]

Park Ridge, New Jersey, USA, Noyes Data Corp. Price -d7236

This book, based on US patents published since 1960, deals with the subject under the following headings: Cottage cheese (pp. 2-46); Soft unprocessed cheeses (pp. 47-62); Processes applicable to all cheeses (pp. 63-86); Specific cheese processes (pp. 87-132); Equipment (pp. 133-195); Adjuvants (microbial rennets, flavourings) (pp. 196-243); Preservation and packaging (pp. 244-260); Process cheese and cheese products (pp. 261-300); and Using whey (pp. 301-331). A company index, inventor index and index of patent numbers are given. In addition to serving as a review of cheese technology, the book can be used as a guide to the US patent literature in this field. FL

153

Processed cheese manufacture. [Book]

Meyer, A.

329pp. ISBN 0 900379 08 1 (1973) [183 ref. En]

London, UK, Food Trade Press Ltd., Price £9

This profusely illustrated book was originally published in German in 1970 as the *Joha Schmelzkäsebuch*. After an introductory section including a discussion of the past and future economic development of the processed cheese industry, the book is divided into 2 main sections: the basic theory of processed cheese manufacture (pp. 30-62); and the manufacture of processed cheese in practice (pp. 63-311). The material in the latter section is arranged under the following main headings: raw materials (cheese, emulsifying salts,

water and additives); manufacture (preparation of raw cheese, processing procedure, filling, packaging and handling, etc.); design of a processed cheese plant; cleaning and disinfecting in the processed cheese factory; technical calculations (mathematical calculation of the raw cheese blend; and recipes for 20 types of processed cheese); analytical and organoleptic evaluation of processed cheese; defects in processed cheese; and technical advisory service for new developments in the processed cheese industry and to prevent or eliminate faulty products. The chapter on the technical advisory service (offered by the publishers of the German original, Benckiser-Knapsack GmbH) contains a technical questionnaire for processed cheese factories needing advice on particular problems. ADL

154

Dehydration of natural and simulated dairy products. [Book]

Gillies, M. T.

Food Technology Review, Noyes Data Corporation

15, v+328pp. ISBN 0 8155 0539 6 (1974) [En] Park Ridge, New Jersey, USA; Noyes Data Corp. Price \$36.00

This book is based on US patents since the early 1960s relating to the dehydration of natural and simulated dairy products. Chapters included are: General processes (pp. 3-36); Fat-containing milk (pp. 37-79); Skim-milk (pp. 80-126); Whey (pp. 127-157); Concentrated milk (including evaporated milk and condensed milk) (pp. 158-178); Eggs (pp. 179-232); Miscellaneous dairy products (including egg products, dry dessert mixes, milk drinks, buttermilk, sour cream, yoghurt and dried cheese) (pp. 233-292); and Simulated dairy products (including coffee whiteners, dessert mixes, artificial sour cream whip, whipped toppings and cheese substitutes) (pp. 239-320). Company, inventor and US patent number indexes are included. VJG

155

The milk fat globule. Emulsion science as applied to milk products and comparable foods. [Book]

Mulder, H.; Walstra, P.

Technical Communication, Commonwealth Bureau of Dairy Science and Technology No. 4, 296pp.

ISBN 0 85198 289 1; ISBN 90 220 0470 8 (1974) [many ref. En] Farnham Royal, UK, Commonwealth Agricultural Bureaux; Wageningen, Netherlands, Centre for Agricultural Publishing and Documentation. £7.00; f45 [Dairying Lab., Dept. of Food Sci., Agric. Univ., Wageningen, Netherlands]

The composition and properties of the milk fat globule, which are vital to the processing and characteristics of many milk products, provide the central theme for this book. It has the coherence one can hope for from 2 authors who have taught and carried on their research under the same roof

for many years. The approach to the subject is based, where possible, on physical-chemical theory, but stresses the applications of these fundamentals in dairy and other food processing. The first half of the book includes introductory chapters on the composition of milk and milk fat, and comprehensive chapters on Crystallization behaviour of milk fat, Fat dispersion in milk, Fat-globule membrane, and Stability of the fat emulsion. The second half of the book covers the fate and role of the milk fat globule through many technological processes, and includes chapters on Changes in fat dispersion with processing, Creaming and separation, Homogenization, Cream, Fat globules in foam products (whipped cream and ice cream), Isolation of milk fat, Structure and texture of butter, and Synthetic fat-globules (recombined milk). Each chapter has a well-selected bibliography and is lavishly endowed with figures and tables; there is an 8-pp. subject index. The whole book will be of use to research workers, to University staff and students, and also to dairy managers as it gives an insight into the multitude of factors that control the variable properties of many milk products. JMD

156

Pollution control in the dairy industry. [Book] Jones, H. R.

Pollution Technology Review, Noyes Data Corporation 7, ix+277pp. ISBN 08155 0522 1 (1974) [69 ref. En] Park Ridge, New Jersey, USA; Noyes Data Corp. Price \$24.00

This book which is based on authoritative US government reports, attempts to clarify the ways and means of keeping dairy processing wastes down to a minimum. The information is arranged under the following headings: Introduction (pp. 1-9); The nature of the industry (pp. 10-14); Processes employed by the industry (including fluid milk and creamery butter production, and cheese, ice cream, condensed and evaporated milk manufacture) (pp. 15-43); Waste production by the industry (pp. 44-66); Process sources of dairy food plant wastes (pp. 67-115); In-plant control to reduce wastes (pp. 116-138); Waste reduction through improved design (pp. 139-152); Whey removal and utilization (pp. 153-181); Dairy plant waste treatment (pp. 182-218); Municipal wastewater treatment and joint treatment (pp. 219-226); Waste treatment economics (pp. 227-241); Case histories of dairy wastewater treatment (pp. 242-269); and Future trends (pp. 270-272). VJG

157

Ice cream. [Book]

Hyde, K. A.; Rothwell, J.

264pp. ISBN 0 443 01050 1 (1973) [12 ref. En] Edinburgh, UK, Churchill Livingstone Price £5 [Hawksbury Agric. Coll., Richmond, NSW, Australia]

This is a very practical book covering both small and large scale manufacture of ice cream, showing clearly the wide experience of both authors in industry and education in many parts of the world. Chapter headings are: Evolution of the ice cream

industry (pp. 1-13); Classification and legislation (pp. 14-30, including nomenclature and legislation from many countries); Ingredients used in ice cream (pp. 31-54); Mixes and mix calculations (pp. 55-72); Blending and processing ice cream mix (pp. 73-107); Freezing ice cream (pp. 108-127); Packs and packaging (pp. 128-141); Hardening, storage and distribution (pp. 142-154); Quality control and laboratory testing of ice cream (pp. 155-172, including both chemical and microbiological analysis); Hygiene, plant cleaning and sanitation (pp. 173-183); Quality of ice cream - defects in ice cream (pp. 184-194); Soft-serve ice cream (pp. 195-209); Water ices, sherbets and mousse (pp. 210-214); Nutritional value of ice cream (pp. 215-234, mainly devoted to a summary of basic nutrition); Culinary uses of ice cream (pp. 235-240); Management of an ice cream plant (pp. 241-258). A 1-page bibliography and 5-page subject index are included. JMD

158

Cooking with yoghurt, cultured cream and soft cheese. [Book]

Nilson, B.

195pp. ISBN 0 7207 0611 4 (1973) [En]
London, UK, Pelham Books Ltd. Price £2.60

In this cookery book, yoghurt, cultured cream and soft cheese are each dealt with independently. The section on each product commences with general notes on the product including its commercial manufacture, how it can be made in the home, the different varieties generally available, nutritive value, and storage; this is followed by chapters of recipes covering all types of dishes from soups to sweets as well as sauces, salad dressings and spreads, which illustrate the considerable scope for use of these dairy products. Many of the entries are traditional recipes from countries with a long history of using these foods in cooking. CDP

159

Guide du fromage. English edition. [Book]

Androuet, P.

545pp. ISBN 0 85628 007 0 (1973) [En] Henley-on-Thames, Oxon, UK, Aidan Ellis Publishing Ltd.

This is a translated edition of a French guidebook, *Guide du Fromage*, published by Editions Stock. Most of the included information only concerns cheeses available in France, although a list of selected varieties from outside France is also given. The following topics are covered: selection of cheeses by flavour and season; availability of different varieties in different seasons; month by month suggestions for menus with suitable accompanying cheeses and wines; effect of climate and pasturage; dictionary of cheeses which includes details on appearance, flavour, source, defect symptoms, accompanying wines, customs and history of each variety; cheeses produced partially or entirely on farms; special cheeses and non-French cheeses, including internally- or externally-flavoured varieties; suggested tours for cheese-tasting in France;

serving, storing and calorie values of cheeses. MC

160

[Cheese manufacture.] Syrodelie. [Book]

Dilanyan, Z. Kh.

398pp. (1973) [57 ref. Ru] Moscow, USSR, Izdatel'stvo Pishchevaya Promyshlennost' price 1.23r

This book deals with theoretical principles and technology of the manufacture of cheese. The 1st section (pp. 5-116), entitled General cheese technology, covers the requirements for milk for cheesemaking, treatment of cheese milk, milk coagulation and curd treatment, moulding, pressing and ripening of cheese, mechanization of cheese manufacture and evaluation and defects of cheese. The 2nd section (pp. 117-392), entitled Specialized technology of cheese, deals with classification of cheeses, hard cheeses with high- and low-temperature scalding, hard cheeses made using spontaneous pressing and low-temp. scalding, semi-hard cheeses, soft cheeses, and lactic and processed cheeses. [See also FSTA (1971) 3 6P1002.] FL

FISH

161

[Fish and fish products.] Fische und Fischerzeugnisse.

Ludorff, W.; Meyer, V.

Grundlagen und Fortschritte der

Lebensmitteluntersuchung 6, 309pp. (1973) [370 ref. De] [Inst. für Biochemie und Tech., Bundesforschungsanstalt für Fischerei, Hamburg, Federal Republic of Germany]

This second edition of the book contains the following chapters: The important fish, crustacea and molluscs (pp. 16-63); Fish as food (pp. 63-87); Fishing (pp. 87-95); Veterinary inspection (pp. 95-118); Utilization of fish (pp. 118-166); Utilization of other marine animals (pp. 167-169); Chemical preservation and colouring of fish products (pp. 169-170); Packaging and storage of fish and fish products (pp. 171-172); Interaction of fish conserves with can materials (pp. 172-176); Chemical analysis and evaluation of fish and fish products (pp. 176-202); Organoleptic and chemical test methods (pp. 202-241); Legal aspects (pp. 241-246); Microbiological tests (pp. 246-262); and Testing of packs (pp. 262-269). Appendices give details of can sizes and the taxonomy of edible fish, crustacea and molluscs. A bibliography and a subject index are also given. AJDW

162

[Handbook of technology of the fish industry. IV.]

Spravochnik tekhnologa rybnoi promyshlennosti.

IV. [Book]

Anon.

487pp. (1973) [Ru] Moscow, USSR; Pishchevaya promyshlennost'. Price 1.71r

This book contains 5 chapters, which deal with fish preservation technology, canning technology

for fish, sea molluscs, water vegetables and the manufacture of tinned metal and glass containers. Equipment used for canning is described, and technological checks during canning and can storage are described. Contents of this part include: Manufacture of cans; Manufacture of semi-durable cans; Equipment for can and semi-durable can manufacture; Metal and glass packages; and basic technology of checking during production. STI

163

[Technology of cold storage of sea products.]

Technologia chlodr

surowcow zywnosciowych. [Book]

Bykowski, P.; Sikorski, Z.; Ziminska, H.

310pp. (1973) [Pl] Gdansk, Poland;

Wydawnictwo Morski. Price 55zl

The book is intended for a wide range of experts dealing with fish processing (engineers, technicians, students, trade employees). The most important chemical compounds of fish are described and changes occurring during cold storage and freezing are discussed. Methods of cooling and freezing are given, suitable equipment is described and computations of cooling processes are presented. STI

164

[Manufacture of intermediate and culinary products from fish and other marine products.] Proizvodstvo polufabrikatov, kulinarnykh izdelii iz ryb i more-produktov. [Book]

Novikov, V. M.

179pp. (1973) [Ru] Moscow, USSR; Pishchevaya promyshlennost' Price 0.50r

Properties required in fish raw material for processing into intermediate products and culinary products are described and classified. The technology of intermediate and final fish products manufacture is given. Organization of manufacture in shore factories and on ships is described. The best known recipes used for culinary products are given. Raw material and auxiliary material consumption is given. Descriptions are given of fish cans and packing of intermediate and final products in polymer foils. STI

165

[New kinds of products from ocean fish.] Novye vidy produktov iz okeanicheskikh ryb. [Book]

Denisenko, H. G.; Zakharova, L. A.; Zvereva, V. S.; Kraineva, E. M.; Lepikash, G. F.; Malorod, V. I.; Tishin, V. E.

84pp. (1972) [Ru] Moscow, USSR, Izdatel'stvo Pishchevaya promyshlennost'. Price 0.30 r

A brief description of the technological properties of ocean fish is presented as well as of the production process for some sea fish specialities. The main chapters are entitled: Technological properties of ocean fish (pp. 3-4); Salting (pp. 4-17); Smoking of fish (pp. 17-27); Production of new kinds of canned fish products

(pp. 36-45); Production of various fish dishes (pp. 45-73); and Manufacture of caviare (pp. 73-76). STI

MEAT & POULTRY

166

Animal and animal products. Outlook August, 1974. [Book]

Canada, Agriculture Canada, Economics Branch
66pp. (1974) [En] Ottawa, Canada

Canadian milk and dairy products output, sales, exports, imports, stocks, prices, etc. in Jan.-June 1974, as well as prospects for the 2nd half of the yr, are reviewed on pp. 36-49, which also deal with Canadian dairy policy and the dairy situation in the USA, Western Europe, New Zealand and Australia. ADL

167

Aspects of meat inspection. [Book]

Thornton, H.

viii + 176pp. ISBN 0 7020 0463 4 (1973) [En] London, UK, Balliere Tindall. Price £3 [Univ. of Rhodesia]

This book contains the following chapters: Transport and ante-mortem care (pp. 1-13); Slaughter of animals (pp. 14-33); Post-mortem inspection (pp. 34-52); Meat quality (pp. 53-63); Deleterious changes in meat (pp. 63-72); Pathology (pp. 73-83); Bacterial diseases (pp. 84-97); Salmonellosis (pp. 98-106); Parasitic diseases (pp. 107-146); and Miscellaneous (pp. 147-171). A 4-pp subject index is appended. JN

168

Pollution control in meat, poultry and seafood processing. [Book]

Jones, H. R.

Pollution Technology Review, Noyes Data Corporation 6, xi + 263pp. ISBN 0 8155 0518 3 (1974) [65 ref. En] Park Ridge, New Jersey, USA, Noyes Data Corporation Price \$36

This book condenses vital data from government sources. Important pollution removal processes are interpreted and explained by examples from recent US patents. The book is divided into 4 parts: The meat processing industry (pp. 1-128); The poultry processing industry (pp. 130-214); The seafood processing industry (pp. 215-252, 65 ref.); and Future trends and recommendations (pp. 253-261). Aspects of the meat processing and poultry processing industries considered include: structure of the industry; processes and pollutants; wasteloads; in-plant waste treatment; pretreatment of waste waters for discharge to municipal systems; municipal waste treatment; planning design and construction of waste water treatment facilities; types of wastewater treatment facilities; and costs of pollution reduction. Aspects of the seafood processing industry considered are: structure of the industry; processes and pollutants; wasteloads; types of waste treatment facilities; and current research. The table of contents is organized in such

a way as to serve as a subject index. Company, inventor and patent number indices are included. VJG

169

Practical pig production. [Book]

Thornton, K.

190pp. ISBN 0 85236 043 6 (1973) [En] Ipswich, UK; Farming Press Ltd. Price £2.75

This book for pig farmers and students covers the subject under the headings: Structure of the pig industry (pp. 17-21); The market outlook (pp. 22-27); Basic policy decisions (pp. 28-41); Breeding (pp. 42-49); Housing - basic requirements (pp. 50-63); Housing - stock (pp. 64-98); Feeding (pp. 99-126); Management - stock (pp. 127-144); Management - staff (pp. 145-148); Health (pp. 149-156); Recording and management control (pp. 157-178); A forward look (pp. 179-181). An appendix lists additional reading matter. A 4-pp subject index is given. JN

170

Processed meats. [Book]

Kramlich, W. E.; Pearson, A. M.; Tauber, F. W. vii±348pp. ISBN 0 87055 (1973) [many ref. En] Westport, Connecticut, USA, AVI Publishing Co. Inc. Price \$20 (USA) \$21 (Foreign) [John Morrel & Co., Chicago, Illinois, USA]

This book is intended as a text and reference work for advanced undergraduate and graduate studies in meat processing. It is hoped that it will prove useful for industrial and government personnel engaged in that field. The following chapters are included: Introduction to meat processing (pp. 1-12, 7 ref.); Composition and nutritive value of raw materials and processed meats (pp. 13-39, 28 ref.); Curing (pp. 40-60, 11 ref.); Smoking (pp. 61-77, 9 ref.); Meat cookery and cooked meat products (pp. 78-107, 21 ref.); Raw materials (pp. 108-121, 13 ref.); Sausages (pp. 122-152, 23 ref.); Least-cost formulation and preblending of sausage (pp. 153-181, 39 ref.); Sausage formulations (pp. 182-220); Smoked meats (pp. 221-241, 23 ref.); Canned meats (pp. 242-256, 14 ref.); Canned meat formulations (pp. 257-279); Analytical methodology (pp. 280-311, 4 ref.); Other methods of processing (pp. 312-330, 18 ref.); and Processed meat deterioration (pp. 331-341, 16 ref.). VJG

171

Sausage casing technology. [Book]

Karmas, E.

Food Technology Review, Noyes Data Corporation

14, x+367pp. ISBN 0 8155 0534 5 (1974) [En]

14, x+367pp. ISBN 0 8155 0534 5 (1974) [En]

Park Ridge, New Jersey, USA; Noyes Data Corp. Price \$36.00

This book is based on US patents since the early 1960's relating to the manufacture and use of sausage casings. It is divided into 3 sections: Edible sausage casings (pp. 3-145); Non-edible sausage casings (pp. 146-258); and Related technology (pp. 259-361). The information is arranged under the

following headings: Natural casings (pp. 3-11); Reconstituted collagen casings (pp. 12-127); Other edible casings (pp. 128-145); Regenerated cellulose casings (pp. 146-235); Thermoplastic casings (pp. 236-258); Shirring (pp. 259-329); Humidification (pp. 330-347); and Packaging for shirred casings (pp. 348-361). Company, inventor and patent number indexes are included. VJG

ADDITIVES

172

The use of chemicals in food production, processing, storage and distribution. [Book]

United States of America, National Council, Food Protection Committee

v+34pp. ISBN 0 309 02136 7 (1973) [27 ref.

En] Washington, DC, USA, National Academy of Sciences, Price \$2.25

The information in this report is arranged under the following headings: The chemical nature of food (pp. 3-5); What is a food additive? (p. 6); Situations in which food additives are acceptable (p. 7); Situations in which food additives should not be used (p. 8); Common types of intentional food additives (pp. 9-15); Some potential sources of incidental additives (pp. 16-19); and The safe use of food additives (pp. 20-30). VJG

173

Toxicants occurring naturally in foods. [Book]

Strong, F. M. (United States of America, National Research Council, Food Protection Committee, Subcommittee on Naturally-Occurring Toxicants in Foods) (Chairman)

Second edition vii+624pp. ISBN 0 309 02117 0

(1973) [many ref. En] Washington, DC, USA, National Academy of Sciences Price \$10.50

Much new information on food safety has been included in this second edition. The subject matter in this report has been organized on the basis of the chemical nature of the materials considered. Chapters included are: Nitrates and nitrites, by D. W. Fassett (pp. 7-25, 81 ref.); Toxic effects of dietary NaCl and the protective effect of K, by G. R. Meneely (pp. 26-42, 80 ref.); Trace elements, by E. J. Underwood (pp. 43-87, 198 ref.); Natural radioactivity in the biosphere and foodstuffs, by C. L. Comar & J. H. Rust (pp. 88-105, 15 ref.); Toxic proteins and peptides, by W. G. Jaffe (pp. 106-129, 130 ref.); Amino acids of nutritional importance, by A. E. Harper (pp. 130-152, 98 ref.); Aminonitriles and amino acids not derived from proteins, by E. A. Bell (pp. 153-169, 87 ref.); Some vaso- and psychoactive substances in food: amines, stimulants, depressants, and hallucinogens, by W. Lovenberg (pp. 170-188, 75 ref.); Potential toxicity of food lipids, by F. H. Mattson (pp. 189-209, 134 ref.); Natural sulphur compounds, by C. H. VanEtten & I. A. Wolff (pp. 210-234, 147 ref.); Toxicity of the vitamins, by K. C. Hayes & D. M. Hegsted (pp. 235-253, 125 ref.); Antivitamins, by J. C. Somogyi (pp. 254-275, 161 ref.); Enzyme inhibitors in foods, by J. R. Whitaker & R. E. Feeney (pp. 276-298, 123 ref.); [Continued in following abstr.] VJG

Toxicants occurring naturally in foods. [Book]

Strong, F. M. (**United States of America**, National Research Council, Food Protection Committee, Subcommittee on Naturally-Occurring Toxicants in Foods) (Chairman)
Second edition vii + 624pp. ISBN 0 309 02117 0 (1973) [many ref. En]

[Continued from preceding abstr.] Cyanogenetic glycosides, by E. E. Conn (pp. 299-308, 31 ref.); Plant phenolics, by V. L. Singleton & F. H. Kratzer (pp. 309-345, 152 ref.); Oxalates, by D. W. Fassett (pp. 346-362, 55 ref.); Phytates, by D. Oberleas (pp. 363-371, 49 ref.); Microbial toxins, by B. J. Wilson & A. W. Hayes (pp. 372-423, 238 ref.); Seafood toxicants, by E. J. Schantz (pp. 424-447, 81 ref.); Toxicants occurring naturally in spices and flavours, by R. L. Hall (pp. 448-463, 98 ref.); Toxic properties of certain unusual foods, by A. G. van Veen (pp. 464-476, 47 ref.); Problems associated with particular foods, by V. N. Patwardhan & J. W. White, Jr. (pp. 477-507, 113 ref.); Naturally occurring substances that can induce tumours, by J. A. Miller (pp. 508-549, 206 ref.); Oestrogens in foods, by M. Stob (pp. 550-557, 58 ref.); Photosensitizing agents, by L. D. Scheel (pp. 558-572, 54 ref.); and Toxicology of natural food chemicals: a perspective, by J. M. Coon (pp. 573-591, 21 ref.). VJG

174

Symposium on spice industry in India, 28 February, 1974. [Book]

India, Central Food Technological Research Institute; **India**, Association of Food Scientists & Technologists
37pp. (1974) [24 ref. En] Mysore, India: Central Food Tech. Res. Inst.

Papers read at the symposium are given, and include: Agricultural aspects of spice industry, by K. V. A. Bavappa (pp. 1-3); Post harvest technology of spices, by C. P. Natarajan (pp. 4-7); Development of spices in India, by T. T. Paulose & E. Velappan (pp. 8-13); The cinnamon industry in Sri Lanka, by R. O. B. Wijesekera (pp. 14-16); Processing of black pepper, by K. V. Mariwala (pp. 17-20); Quality evaluation of spices, by V. S. Govindarajan (pp. 21-23); and The spices in India, by N. B. Shankaracharya (pp. 24-37). HBr

LEGISLATION

175

[Food legislation. Commentary.] Lebensmittelrecht [Book]

Zipfel, W. (Editor)
440pp. ISBN 3 406 03800 X (1973) [De]
Munich, Federal Republic of Germany, Verlag C. H. Beck. Price DM 68.50

This is the 20th supplement to the 1st edition (or 5th supplement to the 2nd edition) of the loose-leaf collection of and commentary on Federal German food laws (2nd edit. published in 1972, 4550pp. in 3 holders, DM 198). This supplement brings the

publication up to date as of April 1973. HBr

176

[Food legislation. Collected texts. Supplement, February, 1974.] Lebensmittelrecht.

Textsammlung. Ergänzungslieferung, Stand Februar 1974. [Book]

Zipfel, W. (Editor)
178pp. (1974) [De] Munich, Federal Republic of Germany; Verlag C. H. Beck, Price DM 10.80

This booklet, the 7th supplement to the 6th edition (or 4th supplement to the 7th edition), contains supplements and amendments to food laws in the Federal Republic of Germany, which are thereby updated to Feb. 1974. A 13pp. subject index is included. [See also FSTA (1974) 6 7U276.] AJDW

177

[Food legislation. Commentary.] Lebensmittelrecht-Kommentar. [Book]

Zipfel, W.
470pp. ISBN 3 406 03801 8 (1974) [De] Munich, Federal Republic of Germany; Verlag C. H. Beck
Price DM 85

This book is the 21st supplement to the 1st edition (or 6th supplement to the 2nd edition) of this loose-leaf collection of and commentary on food laws in the Federal Republic of Germany. This supplement brings the publication up to date as of December 1973. [See also FSTA (1974) 6 8U353]. AJDW

178

[Natural, nature-like and synthetic flavour compounds and legal aspects of their use.]

Natürliche, natur-identische und synthetische Geschmacksstoffe und deren lebensmittelrechtliche Aspekte. [Book]

Auerswald, W.; Brandstetter, B. M. (**Austria**, Österreichische Gesellschaft für Ernährungsforschung)
43pp. ISBN 3 85 175 245 7 (1973) [De] Vienna, Austria; Wilhelm Maudrich Verlag

This booklet, vol. 1 in the series "Problems of Nutritional and Food Science", was published in connection with the "Colloquium on Aromas", organized by the Austrian Society for Nutrition Research in Vienna on Nov. 13, 1972, and includes the following papers given at the Colloquium: The importance of food flavour compounds, by J. Solms (pp. 5-10); International organization of the flavour compound industry, by F. Grundschober (pp. 11-12); Food legislative control of aromatization of foods in the Federal Republic of Germany, by K. G. Bergner (pp. 13-21); and Food legislative control of aromatization of foods in Austria, by F. Petuely (pp. 23-26). Summary of the discussion is included. Natural flavour compounds are defined as substances obtained exclusively by physical methods from vegetable or animal raw material; nature-like flavour compounds as substances isolated chemically or obtained by synthesis from natural raw materials; and synthetic flavour compounds as substances not yet found in natural foods. HBr

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May, 1976

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INTRODUCTION

Food Annotated Bibliographies (FABs) are collections of abstracts on specific topics in food science and technology. The topics are chosen by the staff of the International Food Information Service as being of particular interest or importance. The topics normally interest individual workers, who may not require the full information provided in Food Science and Technology Abstracts, from which the abstracts for FABs are taken. The size and the cost of the FABs are controlled as much as possible with the interests of individual workers in mind.

Titles of the FABs now available are given on the back cover of this booklet. New titles are being added at the rate of about 10 per year. For up-to-date lists of FABs or suggestions for new topics please write to the address given overleaf. New subjects are searched for at least the five most recent volumes of Food Science and Technology Abstracts. Thereafter each FAB is updated monthly. Copies of each month's abstracts on any topic may be obtained as indicated on the back cover of this publication. At the end of each volume of up-dating, the abstracts are merged and made available as a separate supplement to the original FAB.

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H. BROOKES

ASSISTANT EDITOR

ABBREVIATIONS

**These entries are used in addresses only*

A	ampere	*Div.	Division	*Int.	International
abstr.	abstract	DM	dry matter, Deutsche Mark	IR	infrared
*Acad.	Academy etc.	DNA	deoxyribonucleic acid(s)	IU	international unit
Akad.					
ad lib.	Ad libitum	DSA	Dairy Science Abstracts	J	joule
*Agric.	Agriculture, Agricul- tural etc.			Jan.	January
AI	Artificial insemination	E.	East, Eastern etc.	k-	kilo- (as in kcal. kg)
a. m.	ante meridiem	EEC	European Economic Community	kgf	kilogram-force
Anon.	Anonymous	e. g.	for example	*Ltd.	Limited
AOAC	Association of Official Analytical Chemists	Eh	Oxidation-reduction potential	l.	litre
approx.	approximately	*Eng.	Engineering etc.	*Lab.	Laboratory
*Assoc.	Association	*Expt.	Experiment etc.	lb	pound
atm.	atmosphere			lbf	pound-force
Aug.	August	f	femto- (10^{-15} , as in fCi)	m	metre
*Bact.	Bacteriology	°F	degree Fahrenheit	m-	milli- (as in mg, ml, mm)
*Biochem.	Biochemistry	*Fac. Fak.	Faculty etc.	m-equiv.	milli-equivalent
*Biol.	Biology	FAO	Food and Agricul- tural Organization	M	molar concentration
BOD	biological oxygen demand	FDA	Food and Drug Administration	M-	Mega- (as in Mrad)
bp	boiling point	Feb.	February	max.	maximum
Btu	British thermal unit	*Fed.	Federal, Federation etc.	*Med.	Medicine etc.
c-	centi- (as in cm, cm ² , cm ³)	fl oz	fluid ounce	*Micro- biol.	Microbiology
°C	degree Celsius (Centigrade)	fp	freezing point	min	minute (time)
cal	calorie	FSTA	Food Science and Technology Abstracts	min.	minimum
cd	candela	ft	foot, feet	Min.	Ministry
*Chem.	Chemistry	g	gram	mol	mole
Ci	curie	g	gravity	mol. wt.	molecular weight
CMT	California mastitis test	gal	gallon	mp	melting point
COD	chemical oxygen demand	GLC	gas-liquid chromato- graphy	MPN	Most Probable Number
coeff.	coefficient	*Govt.	Government	MS	mass-spectrometry
*Coll.	College			n-	nano- (10^{-9} , as in nm)
*Co.	Company	h	hour	N	Newton (kg m/sec ²)
conc.	concentrated	ha	hectare	N.	North, Northern etc.
concn.	concentration	hl	hectolitre (100 l.)	N	normal concentration
*Corp.	Corporation	hp	horse power	*Nat.	National
CSIRO	Commonwealth Scientific and Industrial Research Organization	HTST	high temperature short time	*Nauchno- issled.	Nauchno-Issledo- vatel'skogo etc.
cwt	hundredweight	Hz	hertz (frequency/sec)	*NSW	New South Wales
				NMR	Nuclear magnetic resonance
Dec.	December			Nov.	November
*Dept.	Department	i c	that is	*Nutr.	Nutrition etc.
detr.	determination	in	inch	Oct.	October
DHIA	Dairy Herd Improve- ment Association	*Inc.	Incorporated	oz	ounce
diam.	diameter	*Ind.	Industry etc.	p-	pico- (10^{-12} , as in p)
dil.	dilute	*Inst.	Institute etc.	P	Poise
				Pathol.	Pathology

*Physiol.	Physiology etc.	SNF	solids-not-fat	V	volt
p.m.	post meridiem	sp., spp.	species	var.	variety
ppm	parts per million	sp. gr.	specific gravity	*Vet.	Veterinary
PVC	polyvinyl chloride	*St.	State etc.	vol.	volume
PVDC	polyvinylidene chloride	*Sta.	Station etc.	*Vses.	Vsesoyuznyi etc.
		summ.	Summary	v/v	volume/volume
				vs.	versus
qt	quart	t	metric tonne (1000 kg)	W	wat!
r	röntgen	TDN	total digestible nutrients	W.	West, Western etc.
rad	rad or radian	*Tech.	Technical, Technology etc.	WHO	World Health Organization
ref.	reference(s)	temp.	temperature	w/v	weight/volume
*Res.	Research	TLC	thin layer chromatography	wk	week
rev/min	revolutions per minute	TS	total solids	wt.	weight
RH	relative humidity	UHT	ultra-high temperature	yd	yard
RNA	ribonucleic acid(s)	UK	United Kingdom	yr	year
		*Univ.	University etc.	μ-	micro- (as in μg, μm)
S.	South, Southern etc.	USA	United States of America	%	per centum
*Sci.	Science, Scientific etc.	USDA	United States Department of Agriculture	>	greater than
SD	Standard deviation	USSR	Union of Soviet Socialist Republics	≥	greater than or equal to; not less than
SE	starch equivalent	*Util.	Utilization	<	less than
SEM	standard error of the mean	UV	ultraviolet	≤	less than or equal to; not greater than
s	second (time)				
*Sel'-skokhoz.	Sel'skokhozyaistvennoi etc.				
Sept.	September				

Chemical symbols are used for all elements.

ABBREVIATIONS FOR LANGUAGES

	<i>Language of text</i>	<i>Language of summaries</i>		<i>Language of text</i>	<i>Language of summaries</i>
Afrikaans	Af	af	Interlingua	Ia	ia
Albanian	Al	al	Italian	It	it
Arabic	Ar	ar	Japanese	Ja	ja
Armenian	Am	am	Kazakh	Ka	ka
Azerbaidzhan	Az	az	Korean	Ko	ko
Belorussian	Be	be	Latvian	Lv	lv
Bulgarian	Bg	bg	Lithuanian	Li	li
Chinese	Ch	ch	Macedonian	Ma	ma
Czech	Cs	cs	Malay	My	my
Danish	Da	da	Norwegian	No	no
Dutch	Nl	nl	Polish	Pl	pl
English	En	en	Portuguese	Pt	pt
Estonian	Ee	ee	Roumanian	Ro	ro
Finnish	Fi	fi	Russian	Ru	ru
French	Fr	fr	Serbo-croat	Sh	sh
Georgian	Ge	ge	Sinhali	Si	si
German	De	de	Slovak	Sk	sk
Greek	Gr	gr	Slovenian	Sn	sn
Hebrew	He	he	Spanish	Es	es
Hungarian	Hu	hu	Swedish	Sv	sv
Indonesian	In	in	Turkish	Tr	tr
			Ukrainian	Uk	uk

May, 1976.

ABSTRACTS

DICTIONARIES, DIRECTORIES

1

The concise herbal encyclopedia. [Book]

Law, D.

266pp. ISBN 0-85152-905-4 (1973) [En]

Edinburgh, UK; John Bartholomew & Son Ltd.

Price £3.00

This well presented book is a delightful combination of fact and fiction on virtually every aspect of herbs and their utilization, and as such represents a browser's paradise. However, it must at the same time be stated that the sheer scope of the applications and uses claimed for herbs will provide more than adequate ammunition for the sceptic. The book is divided into the following chapters: The history of herbal medicine (pp. 17-25); Some commonly used herbs (pp. 26-94); Health from herbal wines (pp. 95-130); How to make cosmetics from herbs (pp. 131-135); Herbs for diets (pp. 136-143); Herbs in cooking (pp. 144-147); Herbs for veterinary purposes (pp. 148-150); Dyes from vegetable substances (pp. 151-152); Herbs in magic and witchcraft (pp. 153-160); Herbal tobaccos (pp. 161-162); Tropical and overseas herbs (pp. 163-168); and Herbs and health (pp. 169-256). Appendices include a 2-pp. bibliography and lists of Latin and Welsh names of herbs. HBr

2

Unconventional protein sources: a guide to selected literature and sources of information. [Booklet]

Attwood, E. M.

8pp. (1973) [En] London, UK; Science Reference Library

This booklet deals briefly with the literature on unconventional protein sources, published since 1965. It lists books, review articles and patents on the subject and refers to abstract journals, bibliographies and periodicals which contain relevant information. Same centres for further information are listed. VJG

3

The illustrated herbal handbook. [Book]

Levy, J. de B.

200pp. ISBN 0-571-04802-1 (1974) [En]

London, UK; Faber and Faber Ltd. Price £2.50

This illustrated book, written by a devotee of natural medicine, includes the chapters: Gathering,

preparing and preserving herbs (pp. 14-24); Herbal materia medica (pp. 25-161); Recipes (cosmetic, medicinal, culinary and other) (pp. 162-175); and Herbs applied to garden and orchard (pp. 176-182). A 6pp. general index and a 7pp. index of disorders and diseases amenable to herbal treatment are included. The main body of the book is an alphabetic listing of >200 herbs, giving a general description, medicinal applications and recommended dosage. This makes fascinating reading, but the very scope of the diseases and disorders claimed to be responsive to herbal treatment will provide ammunition for the sceptic. HBr

4

The IFMA encyclopedia of the foodservice industry. [Book]

Woodman, J.

104pp. (1972) [many ref. En] Chicago, Illinois, USA; Int. Foodservice Manufacturers Assoc. Price \$25.00

This book is intended to be a working handbook of the foodservice industry, written primarily for the food service marketer but of equal value for sales training or education, for the chain executive etc. It contains market statistics, foodservice business trends, and key information sources including governmental agencies, associations, publications and marketing organizations. Information in the encyclopaedia is arranged under the following headings: Trends in the foodservice industry (pp. 3-4); The segments of the foodservice market (pp. 5-13); The foodservice industry business cycle (pp. 14-16); Foodservice market research - an overview (pp. 17-20); The market for food, equipment & supplies (pp. 21-28); Market research - the away-from-home customer (pp. 29-34); Market data: state & metropolitan areas (pp. 35-41); The international foodservice market (pp. 42-44); Operating ratios in the foodservice industry (pp. 45-52); Chains & other multi-unit foodservice organizations (pp. 53-60); Franchising in the foodservice industry (pp. 61-64); Finding your way through the maze in the nation's capital (pp. 65-70); Associations serving the foodservice industry (pp. 71-80); Calendar & special events in the foodservice industry (pp. 81-85); Foodservice industry publications (pp. 86-96); and Other resources (pp. 97-104). VJG

5

Bergey's manual of determination bacteriology. [Book]
 Buchanan, R. E.; Gibbons, N. E. (Editors)
 Ed. 8 vi + 246pp. ISBN 0-683-01117-0 (1974)
 [En] Baltimore, USA; Williams & Wilkins Co.
 Price \$45

6

[Research and development - food industry research in EEC countries. II. Directory of research centres.] Recherche et developement - la recherche industrielle alimentaire dans les pays de la Communauté Européennes. II. Annuaire des centres de recherche. [Book]
 Commission des Communautés Européennes
EUR 5181f, 636pp. (1974) [Fr] Boite Postale 1003, Luxembourg; Office des Publications Officielles des Communautés Européennes

This publication contains: a register of centres for food research participating in the enquiry, listed according to country (pp. 11-42); coded lists (explanations pp. 3-10) of centres dealing with disciplines (pp. 43-51), techniques (pp. 52-60), primary food materials including meat, eggs, marine products, milk, fruits, vegetables, cereals, sugar-producing plants, aromatic plants and spices, protein-rich plants, oleaginaceous plants, cocoa, tea, coffee and chicory, water, effluents, additives and colorants, etc. (pp. 61-71), and manufactured food products (pp. 72-81); information on individual research centres (arranged by country) (pp. 82-636) and including their field of activity and principal research topics. AL

7

[Manual on veterinary and sanitary inspection of products at meat/milk and food control stations.] Spravochnik po veterinarno-sanitarnoi ekspertize produktov na myaso-molochnykh i pishchevykh kontrol'nykh stantsiyakh. [Book]
 Kolobolotskii, G. V.
 Ed. 2, 240pp. (1974) [Ru] Moscow, USSR;
 Izdatel'stvo Kolos Price 0.42r

This manual, intended as a practical guide for veterinary surgeons and practitioners on the staff of meat/milk and food control stations consists of the following main chapters: Duties of control stations (pp. 5-6); Station layout (pp. 6-8); Order of examination and methods of veterinary and sanitary inspection (VSI) of meat (pp. 8-25); VSI of meat of diseased animals (pp. 25-77); Chemical and physico-chemical methods for evaluation of meat of diseased animals and of muscle tissue contamination by microorganisms (pp. 77-90); Sampling of meat for bacteriological examination and significance of results of laboratory analysis in sanitary evaluation of slaughter products (pp. 90-92); Examination of meat for freshness (pp. 93-109); VSI of carcasses and organs in poisoning of animals and presence in meat products of traces of toxic chemicals (pp. 110-115); Examination of preserved meat and of prepared meat products (pp. 115-121); VSI of poultry meat (pp. 121-136); VSI

of rabbit meat (pp. 136-142); VSI of meat of wild animals and game (pp. 143-149); Sanitary inspection of animal fats and vegetable oils (pp. 149-159); VSI of eggs (pp. 159-161); VSI of fish (pp. 161-181); Examination of crustacea (p. 181); Order of examination and VSI of milk and milk products (pp. 181-198); [continued in following abstr.] SKK

8

[Manual on veterinary and sanitary inspection of products at meat/milk and food control stations.] Spravochnik po veterinarno-sanitarnoi ekspertize produktov na myaso-molochnykh i pishchevykh kontrol'nykh stantsiyakh. [Book]
 Kolobolotskii, G. V.
 Ed. 2, 240pp. (1974) [Ru] Moscow, USSR;
 Izdatel'stvo Kolos Price 0.42r

[Continued from preceding abstr.] Sanitary inspection of fruit, berries and vegetables (pp. 198-208); Inspection of fungi (pp. 208-212); Sanitary inspection of flour, groats and starch (pp. 212-215); Inspection of honey (pp. 215-228); and Examination and evaluation of grape wines (pp. 228-233). 1 appendix lists some relevant regulations, and a 2nd lists max. official tolerances for traces of toxic chemicals in foods. SKK

9

Report of the Canadian Agricultural Outlook Conference 1975. [Book]
 Canada, Department of Agriculture, Economics Branch
 x + 273pp. (1975) [En] [Ottawa, Canada]

This book consists of papers presented at the 1975 Canadian Outlook Conference (held in Ottawa 20-21 Jan. 1975). Papers include: Food Prices are everybody's business, by A. F. W. Plumptre; The hungry world's stake in Canadian Agriculture, by G. I. Trant; Outlook for agricultural research and development, by B. B. Migicovsky; Situation and outlook for wheat, oilseeds, beef, hogs, sheep and lamb, poultry and eggs, dairy, horticulture, and special crops. Detailed tables and graphs are included in most of the papers. [See FSTA 6 (1974) 6D219 for 1974 report.] MC

10

[Handbook for poultry processors.] Spravochnik tekhnologa pitsepererabatyvayushchei promyshlennosti. [Book]
 Nikitin, B. I.
 423pp. (1973) [24 ref. Ru] Moscow, USSR;
 Pishhevaya Promyshlennost'

The following chapters are included in this book: Poultry meat processing (pp. 3-88); Processing of rabbits (pp. 89-107); Eggs and egg products (pp. 107-182); Poultry meat products (pp. 182-216); Canned poultry and rabbit meat products (pp. 217-287); Sausages made from poultry and rabbit meat

(pp. 287-338); Rendered edible poultry fats (pp. 339-351); Feathers and feather products (pp. 352-379); and Packaging materials and auxiliary materials (pp. 380-408). STI

11

[List of approved food additives, 1975.]

Fortegnelse over de for 1975 godkjente tilsetningsstoffer. [Booklet]

Norway, Sosialdepartementet, Helsedirektoratet 24pp. (1975) [No]

List 1 indicates which additives may be used in particular groups of foodstuffs. The 10 groups are: milk and milk products; egg products; meat and meat products; fish and shellfish; flour, bakery products etc.; preserved vegetables; fat, oils, margarine etc.; carbonated beverages; cocoa, chocolate, confectionery etc.; and other products. List 2 classifies the additives by their mode of action (substances preventing microbial growth or chemical changes, thickening agents, emulsifiers and stabilizers, etc.). List 3 is an alphabetical list of additives. ADL

12

Office consolidation of the Food and Drugs Act and of the Food and Drug Regulations with amendments to March 26, 1974. [Booklet] Canada, Department of National Health & Welfare 143pp. (1974) [En] Ottawa, Canada; Information Canada

This publication gives the full text of recent amendments to the Canadian Food and Drugs Act and Food and Drug Regulations, and brings these up to date as of March 26, 1974. [See also FSTA (1974) 6 12U478.] AJDW

13

[Research and development - food industry research in EEC countries. I. Directory of research centres.] Recherche et développement - la recherche industrielle alimentaire dans les pays de la Communauté Européenne. I. Annuaire des centres de recherche. [Book]

Commission des Communautés Européennes EUR 5181f, 436pp. (1974) [Fr] Luxembourg; Office des Publications Officielles des Communautés Européennes

The first part of this book covers the general organization and structure of food industry research, finance and personnel in the individual EEC countries (excluding Luxembourg). The second part includes appendices, e.g. listing scientific publications (by country), and giving research topics being undertaken and the possibility of collaboration in the Community. Also included are additional entries for the Directory of research centres [see FSTA (1975) 7 6A282]. AL

14

Russian-English dictionary for students of fisheries and aquatic biology. [Book]

Ricker, W. E.

xi+428pp. (1973) [Ru, En] Ottawa, Canada; Fisheries Research Board of Canada Price \$7 00 [Fisheries Res. Board of Canada, Pacific Biol. Sta., Nanaimo, British Columbia, Canada]

This comprehensive Russian-English dictionary of terms used in fisheries and freshwater and marine biology (Bulletin 183 of the Fisheries Research Board of Canada) includes many edible fish and other aquatic organisms (including many uncommon species), together with numerous other terms important in the production and processing of sea-foods. An English index is included.

AJDW

15

Encyclopedia of food technology and food science series. Vol. 2. Encyclopedia of food technology. [Book]

Johnson, A. H.; Peterson, M. S.

xv+993pp. ISBN 0-87055-157-4 (1974) [many ref. En] Westport, Connecticut, USA; AVI Publishing Co., Inc. Price \$65 (US) \$66 (Foreign) [Res. & Development Div., Kraftco Corp., Glenview, Illinois, USA]

This second volume covers 275 subjects pertinent to food technology from 'Acidulants' to 'Zero Milk', which have been contributed by 235 individuals working in food technology and related fields. The book brings together in one source a useful collection of information from many disciplines including agriculture, chemistry, microbiology, engineering, quality control, processing and preservation, crops and animal products, fabricated foods, space foods, food service, nutrition and nutritional labelling, sensory evaluation, and the ecology of waste handling and disposal. Subject headings, which are arranged alphabetically, are cross referenced and a subject index is included. The book should prove invaluable to students and professors in food technology and related fields and to others engaged in production, marketing and merchandizing in the food industry.

VJG

16

Recipe index 1971. [Book]

Forsman, J.

viii+764pp. (1973) [En] Detroit, Michigan, USA; Gale Research Company Price \$20

This book is the key to over 7700 recipes published in 14 popular US magazines in 1971. It is a tool for locating those recipes from 23 000 access points. Each entry states the particular name of a recipe, and in parentheses lists information not in the title i.e. type of recipe, foreign or English equivalent of the name; major ingredients, and

nationality. The index is in dictionary order using natural language. In some cases inverted word order has been used to bring similar recipes together. In those cases appropriate cross references have been made. VJG

17

[Vineyard atlas and wine lexicon.] Weinlagen-Atlas mit Wein-Lexikon. [Book]
Ambrosi, H.
Ed. 2, 112pp. (1974) [6 ref. De] Bielefeld, Federal Republic of Germany; Ceres-Verlag Rudolf-August Oetker KG

The 1st section of this paperback publication contains well-produced maps of the 11 main German wineproducing areas, each map showing the position of the individual vineyards, which are also listed in full in alphabetical order. The 2nd section consists of a wine lexicon giving definitions of and explanatory notes on many terms of importance in the wine industry. Subjects covered range from addresses of wine associations to preferred temp. for testing, and from examples of broad and precise labelling to a tabulation of wine quality gradings. HBr

GENERAL

18

[Foods and the protection of the environment.] Umweltschutz und Lebensmittel. [Book]
Bergner, K. G. (Chairman)
81pp. ISBN 3-7880-7050-1 (1973) [many ref. De] Karlsruhe, German Federal Republic; Verlag C. F. Müller. Price DM11

This book (part 7 of an 8-part series giving the text of lectures presented at the lecture series 'Environment 72' held at Stuttgart, Federal Republic of Germany, 30 June-9 July 1972) includes the following: Foods and protection of the environment from the point of view of the food chemist, by L. Acker (pp. 3-19, 22 ref.); Food infection and poisoning from the point of view of the food hygiene specialist, by H. P. R. Seeliger (pp. 21-40, 3 ref.); Food and protection of the environment from the point of view of the veterinarian, by D. Grossklaus (pp. 41-60, 11 ref.); and Foods and protection of the environment from the international point of view, by H. P. Mollenhauer (pp. 61-71, 6 ref.). Two appendices give the resolutions of the 25th World Health Conference (held in Geneva, Switzerland, in May 1972), and recommendations of the United Nations Organization Conference on identification and control of poisonous substances of international significance. AJDW

19

FAO commodity review and outlook 1973-1974. [Book]
Food & Agriculture Organization
240pp. (1974) [En] Rome, Italy; FAO Price £2.95

The 3 chapters of this review deal respectively with the general commodity situation and outlook; impact of the energy crisis on the competitive position of agricultural raw materials; and the situation and outlook by commodities (wheat, coarse grains, rice, milk and milk products, meat and poultry, oilseeds, oils and fats, sugar, bananas, citrus fruit, pepper, coffee, cocoa, tea, wine and fishery products). [See FSTA (1974) 6 1D17 for previous review.] ADL

20

Food and drink in Britain. [Book]
Wilson, C. A.
472pp. ISBN 0 09 456040 4 (1973) [many ref. En] London, UK; Constable & Co. Ltd. Price £5.00

The history of the choice and preparation of food in Great Britain from the Stone Age to the industrial revolution is described. The subject is covered under the headings: Seafish, freshwater fish and salt (pp. 16-59); Game beasts and tame beasts (pp. 60-111); Wild fowl, tame fowl and eggs (pp. 112-148); Milk, cheese and butter (pp. 148-185); Cereals, potherbs and pottage (pp. 186-228); Bread, cakes and pastry (pp. 229-274); Spices, sweeteners, sausages and puddings (pp. 274-322); Fruit and salad vegetables (pp. 323-364); Drink in Britain (pp. 365-417); The nineteenth century and after (pp. 418-421). A detailed 14-pp. subject index is given. JN

21

Biology and the food industry. [Book]
Barnell, H. R.
iii+60pp. ISBN 0-7131-2436-9 (1974) [24 ref. En] London, UK; Edward Arnold (Publishers) Ltd. Price £1.50

This booklet, which is No. 45 in the series Studies in Biology, covers in outline some of the constituent parts of the food industry particularly of the United Kingdom, emphasizing the influence on it of the biological nature of its raw materials. Chapters included are: The food industry (pp. 1-3); Raw materials (pp. 4-7); Food preservation (including drying and dehydration, pasteurization and canning, the container, use of nisin, chilling and freezing, food irradiation) (pp. 8-31); Food manufacturing (including milling and baking industries, margarine, cooking fats and oils) (pp. 32-43); New foods (including convenience foods, vegetable 'meats', leaf protein, single cell protein, protein from oil) (pp. 42-51); Quality and nutritional value (pp. 52-57); and Looking to the future (pp. 58-59). VJG

2 2

Basic engineering principles. [Book]

Merkel, J. A.

vii+204pp. ISBN 0-87055-164-7 (1974) [54 ref. En] Westport, Connecticut, USA; AVI Publishing Co., Inc. [Univ., College Park, Maryland, USA]

This textbook, designed for non-engineering students, includes the following chapters: Units of measurement (pp. 1-13, 5 ref.); Vectors (pp. 14-27, 3 ref.); Mechanical principles (pp. 28-51, 4 ref.); Basic electricity (pp. 52-85, 5 ref.); Fluid mechanics (pp. 86-126, 6 ref.); Heat transfer (pp. 127-147, 5 ref.); Psychrometrics (pp. 148-167, 7 ref.); Air conditioning (pp. 169-190, 19 ref.). Appendices give conversion factors for various systems of units; specific heat values for selected fruits and vegetables; absolute roughness values of various pipe materials; and values of the trigonometric functions of angles of 0-90°. AJDW

2 3

Environmental quality and food supply. [Book]

White, P. L.; Robbins, D. (Editors)

xx+248pp. ISBN 0-87993-037-3 (1974) [many ref. En] Mount Kisco, New York, USA; Futura Publishing Co. Inc. Price \$13.95

The following chapters are included in this book: Fitness of the ecosystem, by F. Sargent, II (pp. 1-5, 4 ref.); Power structure and environment, by C. Schlesinger (pp. 7-15, 2 ref.); Ecology and human health engineering, by C. R. Goldman (pp. 17-23, 6 ref.); By-product recovery as a resource, by T. W. Kwon (pp. 25-38, 24 ref.); Benefits of pollution control, by A. P. Carlin (pp. 39-47, 6 ref.); Costs of pollution and recycling, by E. E. Erickson (pp. 59-60, 3 ref.); Agricultural wastes, by E. P. Taiganides (pp. 61-65, 5 ref.); The economic consequences of regulation or prohibition of agricultural chemicals in American agriculture, by D. Chapman (pp. 67-77, 7 ref.); Pesticides in relation to environmental quality, by F. H. Tschirley (pp. 79-86, 5 ref.); Fertilizers, by O. A. Lorenz (pp. 87-92, 10 ref.); Nitrate accumulation in vegetables, by O. A. Lorenz & B. L. Weir (pp. 93-103, 25 ref.); The food system and environmental quality, by W. A. Mercer (pp. 105-113, 1 ref.); Energy use and energy waste, by R. S. Berry (pp. 115-130); The philosophy of acceptable risk and the practicality of maximum safety, by W. J. Darby (pp. 131-142, 5 ref.); [Continued in following abstr.] VJG

24

Environmental quality and food supply. [Book]

White, P. L.; Robbins, D. (Editors)

xx+248pp. ISBN 0-87993-037-3 (1974) [many ref. En] Mount Kisco, New York, USA; Futura Publishing Co. Inc. Price \$13.95

[Continued from preceding abstr.] Natural toxicants of geologic origin, by H. L. Cannon (pp. 143-164, 52 ref.); Naturally occurring toxicant in foods, by J. M. Coon (pp. 165-172, 11 ref.);

Unintentional additives in foods, by H. F. Kraybill (pp. 173-184, 16 ref.); Phthalates: a story in the making, by P. R. Graham (pp. 185-206, 38 ref.); Toxicology of phthalic acid esters, by S. I. Shibko (pp. 207-226, 21 ref.); The etiology and prevention of cancer, by J. H. Weisburger (pp. 227-240, 20 ref.); and Definition of risk; priority for safety, by S. S. Epstein (pp. 241-248). VJG

25

The husbandry and health of the domestic buffalo. [Book]

Cockrill, W. R. (Editor)

v+993pp. (1974) [many ref. En] Rome, Italy; Food & Agriculture Organization Price £8, \$20

Part I of this book (pp. 1-489; 124 figures, illustrations and photographs) covers the classification, biology, management, conservation and use of the water buffalo; chapter 13, by H. D. Kay, deals with milk and milk production (pp. 329-376) and chapter 14, by A. Ognjanovic covers meat and meat production (pp. 377-400). Tabulated data include composition of buffalo milk and carcass composition and quality. An extensive bibliography is appended on pp. 842-970. MC

26

[Radiobiology and radioecology of farm animals.]

Radiobiologiya i radioekologiya

sel'skokhozyaistvennykh zhivotnykh. [Book]

Annenkov, B. N.; Dibobes, I. K.; Aleksakhin, R. M.

222pp. (1973) [many ref. Ru] Moscow, USSR; Atomizdat Price 1.78r

Chapters in this book, written by a number of authors, are: Accumulation of fission products in food plants (pp. 11-27, ref.); Metabolism of fission products in the body of farm animals (pp. 28-44, 66 ref.); Biological action of external radiation and incorporation of radionuclides in the body of farm animals (pp. 45-69, 38 ref.); Biological effect of newly formed fission products on dairy cattle and their transfer into animal products (pp. 70-139, 44 ref., see following abstr.); Access of fission products to the body of animals and their transfer to animal products (pp. 140-171, 72 ref.); Control of passage of fission products into farm animals and radionuclide content of feeds (pp. 172-180, 6 ref.); Organization of animal farming in areas of high radioactive fission content (pp. 181-191, 19 ref.); Influence of technological and culinary treatment of animal products on their content of fission products (pp. 192-211, 82 ref.); and Biological constants for farm animals (pp. 212-221, 18 ref.). DMK

27

The feedlot. [Book]

Dyer, A. I.; O'Mary, C. C. (Editors)

ix+224pp. (1972) [many ref. En] Philadelphia, USA; Lea & Febiger Price £8.00 [Washington St. Univ., Pullman, Washington, USA]

This book includes the following chapters of

interest to food scientists: Types of cattle to feed, by C. C. O'Mary (pp. 83-99, 23 ref.); Buying feeders and selling fed cattle, by O. S. Wirak (pp. 100-113, 14 ref.); Control of feedlot diseases and parasites, by E. G. Johnson (pp. 143-161, 4 ref.); and Measuring beef quality, by E. L. Martin (pp. 176-192, 6 ref.). AJDW

28

Pastoral industries of Australia. Practice and technology of sheep and cattle production. [Book] Alexander, G.; Williams, O. B. (Editors) xv+567pp. ISBN 0-424-06541-1 (1973) [many ref. En] Sydney, Australia; Sydney University Press Price £8.40

This book provides a detailed account of production of sheep and cattle under grazing conditions in Australia and includes chapters on the following topics: History of the Australian-pastoral industries to 1960, by L. J. Peel (pp. 41-75, 62 ref.); The mutton and lamb industries, D. J. Cannon, L. P. Thatcher & I. R. Thomas (pp. 117-142, 53 ref.); The dairy industry, by R. H. Hayman, & J. C. Radcliffe (pp. 171-198, 19 ref.); Breeding and genetics, by W. A. Pattie (pp. 303-335, 90 ref.); Economic and marketing policies of the pastoral industries, by A. S. Watson & A. G. Lloyd (pp. 467-493, 42 ref.); Substitutes for animal products, by M. V. Tracey (pp. 494-511, 36 ref.); and Future prospects for the pastoral industries, by K. A. Ferguson (pp. 521-545, 82 ref.). MC

29

An investigation of brand choice processes. [Book] Wierenga, B. xiii+256pp. ISBN 90-237-1112-2 (1974) [75 ref. En] Rotterdam, Netherlands; University Press f59.50 [Agric. Univ., Wageningen, Netherlands]

This book, which contains contributions to the development of models for brand choice behaviour, as well as much information about brand choice behaviour of consumers, includes the following chapters: Brand loyalty and brand choice processes: an introduction to the study (pp. 1-7); The data used and some characteristics of the markets (pp. 8-15); Models for brand choice processes (pp. 16-59); Application of the brand choice models to the empirical data (pp. 60-120); Learning models for brand choice: a closer examination (pp. 121-155); An alternative way of studying the brand choice process: the poolsize approach (pp. 156-184); The brand choice process and its relations to environmental variables (pp. 185-216); The brand choice process and its relations to household variables (pp. 217-244); and Summary and conclusions (pp. 245-248). VJG

30

Nutrition and Labeling Conference, Rutgers Meat Science Institute, October 17, 1972. [Conference proceedings] Pintauro, N. D. (United States of America,

Rutgers University, Food Science Department) (Editor) 158pp. (1973) [many ref. En] New Brunswick, New Jersey, USA; Rutgers Univ.

Papers presented at the 15th Annual Rutgers Meat Science Institute conference on 16-18 Oct. 1972 included: The nutrients we need, by M. J. Babcock (pp. 1-29); Nutritional content and value of meat, (including 27 tables mainly dealing with composition, calorific value, vitamin and mineral contents of different raw, cooked and processed meats and organs, and lipid and cholesterol contents of several raw meats and organs), by C. E. Poling (pp. 30-75, 3 ref.); Legal aspects of labeling and composition of foods, by S. A. Weitzman (pp. 76-109); and How nutritional labelling can serve the meat industry, by P. A. Lachance (pp. 110-131, 11 ref.). The appendix contains a reproduction of the Rules and Regulations of the US Food and Drug Administration on food labelling, first published in Federal Register (1973) 38 (49, March 14) 6950-6975. AL

31

[Diet in cases of disturbance of the fat metabolism (hyperlipidaemia Types II, III, IV). Low-cholesterol, low-fat or fat-modified, low-carbohydrate or carbohydrate-modified foods.] Diät bei Störungen des Fettstoffwechsels (Hyperlipidämie Typ II, III, IV). Cholesterinarme, fettarme bzw. fettmodifizierte, kohlenhydratarme bzw. kohlehydratmodifizierte Kostformen. [Book] Kriehuber, E.; Kriehuber, J. 90pp. ISBN 3-85175-254-6 (1974) [De] Vienna, Austria; Verlag Wilhelm Maudrich

This book, designed primarily for dieticians, is the 6th in series "Collection of Modern Dietary Prescriptions" (Sammlung neuzeitlicher Diätvorschriften), of which 29 have been issued to date. It gives a good introduction into the problem of hyperlipidaemia and cognate fields, and lists a series of 182 diets for use in cases of disorders of the fat metabolic processes. A useful feature is a 2-pp. index of the diets, divided into types (soups, cold dishes, fish dishes, meat dishes, vegetables, salads and raw foods). HBr

32

Food science in developing countries: a selection of unsolved problems. [Book] United States of America, National Academy of Sciences; United States of America, National Research Council 79pp. (1974) [many ref. En] Washington, DC, USA; Board on Science and Technology for International Development

This book, compiled by the Advisory Committee on Technology Innovation of the Board on Science and Technology for International Development Commission on International Relations, aims to stimulate interest and research on problems of immediate concern to developing countries in the fields of food science and nutrition. The compendium is arranged under the following parts:

New foods (aquatic weeds as a food resource (pp. 1-3, 11 ref.); Use of cake from traditional oil-extraction processes (pp. 3-4, 4 ref.); Agronomy of leaf-protein production (pp. 4-6, 8 ref.); Potatoes in lowland tropics (pp. 6-8, 2 ref.); Soy-protein-based-milk with cow or buffalo milk flavour (pp. 8-9, 6 ref.); Milk preserves for hot, humid areas (pp. 9-11, 4 ref.); Introducing qualities of ewe's milk cheese into pasteurized cow's milk cheese (pp. 11-13, 3 ref.); Raised bread without wheat (pp. 13-14, 7 ref.); Flat breads without wheat (pp. 14-16, 7 ref.); Upgrading unused oilseed cakes (pp. 16-18, 3 ref.); Local low-cost weaning foods (pp. 18-20, 12 ref.)). [Continued in following abstr.] GL

3 3

Food science in developing countries: a selection of unsolved problems. [Book]

United States of America, National Academy of Sciences; United States of America, National Research Council

79pp. (1974) [many ref. En] Washington, DC, USA; Board on Science and Technology for International Development

[Continued from preceding abstr.] Food processing (High cost of packaging thermally processed food (pp. 21-23, 5 ref.); Indigenous sources of enzymes for more rapid fermentation of fish (pp. 23-25, 4 ref.); Cooking quality of stored beans (pp. 25-26, 5 ref.); Storage for food products of plant origin (pp. 27-28, 4 ref.); Processing fermented fish products (pp. 28-29, 4 ref.); separating coconut oil and protein by fermentation (pp. 30-31, 2 ref.); Keeping qualities of buffalo milk and its processed products (pp. 32-33, 2 ref.); Salt for preservation purposes (pp. 33-34, 2 ref.); Milling quinoa seeds (pp. 34-36, 8 ref.); Ageing of starchy products (pp. 36-39, 13 ref.); Increased use of red palm oil (pp. 39-40, 6 ref.); Food composition (Factors governing texture and softness of fermented foods in India (pp. 41-42, 2 ref.); Evaluating useful properties of proteins, polysaccharides, and lipids of cereals and legumes (pp. 42-43, 4 ref.); Fat composition of fried foods in India (pp. 44-45, 3 ref.); Trace elements in animal feeds (pp. 45-57, 15 ref.); Biochemical factors limiting the use of legume grains (pp. 47-48, 3 ref.); [Continued in following abstr.] GL

3 4

Food science in developing countries: a selection of unsolved problems. [Book]

United States of America, National Academy of Sciences; United States of America, National Research Council

79pp. (1974) [many ref. En] Washington, DC, USA; Board on Science and Technology for International Development

[Continued from preceding abstr.] Nutrition and health (Favism (pp. 49-50, 4 ref.); Lactose intolerance (pp. 50-52, 5 ref.); Malnutrition - a sociological maladjustment syndrome? (pp. 52-54, 9

ref.); Vitamin A fortification of tea (pp. 54-55, 1 ref.); Iron fortification of salt (pp. 55-57, 7 ref.); Systems approach to food and nutrition policies (pp. 57-59, 4 ref.); Factual knowledge of food-consumption patterns (pp. 59-61, 8 ref.); Microbiological monitoring kit for small plants (pp. 61-62, 3 ref.); Spoilage of tropical fish (pp. 62-65, 7 ref.); Evaluating spoilage of foods of animal origin (pp. 65-66, 4 ref.); Influence of germination on digestibility of proteins in pulses (pp. 67-68, 6 ref.); Survey of *Clostridium botulinum* in tropical fishing grounds (pp. 68-69, 2 ref.); Nutritional factors in endemic dental and skeletal fluorosis (pp. 69-71, 5 ref.); Food-science training (pp. 71-73, 3 ref.); and Mycotoxicosis in humans (pp. 73-75, 5 ref.)). GL

35

Food products formulary. Vol. I. Meats, poultry, fish, shellfish. [Book]

Komarik, S. L.; Tressler, D. K.; Long, L. ix+348pp. ISBN 0-87055-152-3 (1974) [33 ref. En] Westport, Connecticut, USA; AVI Publishing Co. Inc. Price \$37 (US) \$38 (Foreign) [Food Product Development Res., Griffith Lab., Inc., Chicago, Illinois, USA]

This book includes recipes and procedures for the manufacture of a wide range of meat and sea-food products. Chapters include: Cured meats (pp. 1-25); Sausages (pp. 26-87); Luncheon meats, meat loaves and meat spreads (pp. 88-121); Meat dishes, meat loaves, and meat patties using plant protein extenders (pp. 122-138); Miscellaneous canned meat products (pp. 139-167); Frozen meat and meat dishes, sauces and gravies (pp. 168-195); Soups, gravies and sauces (including mixes) (pp. 196-222); Poultry products (pp. 223-270); Fish products (pp. 271-306) and Shellfish and miscellaneous marine products (pp. 307-332). A 14-page subject index is included. AJDW

36

Biology: food and people. [Book]

Barrass, R. x+246pp. ISBN 0-340-17604-0 (1974) [many ref. En] London, UK; English Universities Press Ltd. Price £2.25 [The Polytechnic, Sunderland, Durham, UK]

This book, intended for both the intelligent general reader and the student of biology, discusses the economic importance of advances of the biological sciences, particularly in relation to the need for more food and conservation of natural resources in the light of the growth in the world's population. Individual chapters in the book include: Cereal production and plant breeding; Chemical regulation of plant growth; Factory farming; Farm animals and animal breeding (including intensive rearing systems and fish farming); Exploitation of populations of large mammals; Exploitation of sea fisheries; and Wastage (of food) after production. A 6-pp. index is included. HBr

37

The carriage of refrigerated cargoes. Le transport maritime des denrées périssables sous régime du froid. [Book]

France, Institut International du Froid
137pp. (1973) [En, Fr] Paris, France Price 30F

This manual, which is a supplement to Bulletin of the International Institute of Refrigeration, is primarily intended for the guidance of the sea going engineer who is responsible for refrigerated cargoes. It was prepared by an international working party of engineers who specialize in sea transport and also by food storage experts. It is divided into 4 chapters: General (pp. 12-43); Horticultural products (pp. 44-103); Animal products (pp. 104-119); and Ships' stores (pp. 120-125). The first chapter provides general data on refrigeration requirements, equipment, defrosting, refrigeration on board ship, tainting and compatibility of cargoes. Horticultural products considered are: deciduous fruit (apple, pear, grape, apricot, peach, plum and prune) (pp. 52-77); citrus fruit (pp. 78-81); tropical fruit (banana, avocado pear, pineapple) (pp. 82-92); vegetables (tomato, aubergine, melon, potato, onion, cabbage, broccoli and cauliflower, asparagus, celery, lettuce, carrot) (pp. 92-100); and animal products (chilled meat, frozen meat, frozen fish, eggs, butter, cream, ice cream, cheese and frozen packaged foods) (pp. 104-125). VJG

38

[General aspects of food products.] Generalites sur les produits alimentaires. [Book]

Rocheffrette, M.
179pp. (1974) [Fr] Paris, France; Editions Eyrolles Price 75F

This manual deals with food products of animal origin from the viewpoints of technical documentation and French and EEC regulations. It covers the topic in the following main chapters: Procedures for preparation, processing and preservation of food products (pp. 13-24); Food product additives (pp. 24-49); Pesticide residues (pp. 50-56); Industrial toxicant residues (pp. 57-63); Medical residues (e.g. antibiotics) (pp. 64-67); Non-conventional proteins (pp. 67-73); Materials coming into contact with food products (pp. 75-82); Packaging and packaging materials (pp. 82-92); Treatment of materials coming into contact with food products (pp. 92-100); Units and measuring instruments (weighing machines, weights, liquid containers) (pp. 101-128); Marks, denominations of origin, labels, standards (pp. 129-160); Consumer protection (pp. 160-169); and Informative labelling (pp. 169-179). SKK

39

The saccharine disease. [Book]

Cleave, T. L.
xii + 200pp. ISBN 0-7236-0368-5 (1974) [many ref. En] Bristol, UK; John Wright & Sons Ltd.

Price £1.75

In this book the author elaborates his conception that many of the ills of Westernized countries, which are discussed in the following chapters, are really manifestations of a single master-disease, referred to as 'Refined-carbohydrated Disease' or Saccharine disease. Chapters included are: The law of adaptation - hereditary defect - personal make-up (pp. 1-5, 4 ref.); Conception of a single 'Saccharine Disease' (pp. 6-27, 25 ref.); The Saccharine disease and the colon (pp. 28-43, 33 ref.); Varicose veins, deep venous thrombosis, varicocele, and haemorrhoids (pp. 44-65, 36 ref.); Dental caries: periodontal disease (pp. 66-72, 21 ref.); Obesity (pp. 73-79, 3 ref.); On the causation of diabetes (pp. 80-96, 34 ref.); Coronary disease (pp. 97-119, 52 ref.); Primary Escherichia coli infections and other conditions (pp. 120-137, 30 ref.); Peptic ulcer (pp. 138-174, 35 ref.); and Hypertension, gout and hiatus hernia (pp. 175-179, 8 ref.). An appendix 'The natural diet for health' (pp. 188-192) is included. VJG

40

Pests of field crops. [Book]

Jones, F. G. W.; Jones, M. G.
Ed. 2, viii + 448pp. ISBN 0-7131-2443-1 (1974) [many ref. En] London, UK; Edward Arnold (Publishers) Ltd. Price £8.50 [Nematology Dept., Rothamsted Experimental Sta., Harpenden, Herts., UK]

This book, which describes pests of British field crops, retains the form of the first edition, but has been substantially revised to incorporate much new information particularly in relation to the nature of pesticides. Chapters included are: The origin and nature of pest problems (p. 1-12); An introduction to insect structure and classification (pp. 13-37); Insects of minor economic importance - Collembola, Orthoptera, Dermaptera, Thysanoptera (pp. 38-43); Plant bugs - Hemiptera (pp. 44-86); Butterflies and moths - Lepidoptera (pp. 87-110); Beetles - Coleoptera (pp. 111-158); Sawflies, wasps, bees and ants - Hymenoptera (pp. 159-169); Flies - Diptera (pp. 170-208); Arthropod pests other than insects (pp. 209-220); Slugs and snails (pp. 221-227); Plant parasitic nematodes (pp. 228-289); Birds and small mammals (pp. 290-321); Pests of stored grain (pp. 322-328); Crops and their pests (pp. 329-346); Pest management (pp. 347-361); and Pesticides (including residues in soils and foodstuffs) (pp. 362-394). VJG

NUTRITION

41

Second book of food and nutrition. [Book]

Matthews, W.; Wells, D. (United Kingdom, Flour Advisory Bureau)
x + 242pp. ISBN 0-901762-18-0 (1973) [many ref. En] London, UK; Home Economics

This book deals with the theory and practice of nutrition and with food and diet.

edition a number of chapters have been completely re-written and metric measures and terms have been introduced into the text. The information is arranged under 5 section headings: Underlying theory of nutrition; Nutrition and food preparation; Some aspects of food technology; Marketing of food; and A review of nutrition in under-privileged countries. Chapters included are: Proteins (pp. 1-12); Minerals (pp. 13-25); Vitamins (pp. 26-42); Carbohydrates and fats (pp. 43-59); Digestion (pp. 60-64); Some dietary problems (pp. 65-80); Planning meals (pp. 81-98); Convenience foods (pp. 99-117); Domestic storage of food (pp. 118-128); The cooking of food (pp. 129-138); The effect of cooking on the nutritive value of food (pp. 139-150); Advances in agricultural techniques (pp. 151-156); Some advances in food technology (pp. 157-167); Advances in food preservation (pp. 168-190); Food legislation (pp. 191-202); Packaging of food (pp. 203-209); Food marketing and handling (pp. 210-218); and The hungry nations (pp. 219-230). A 5pp. bibliography is included. VJG

42

Nutritional improvement of food legumes by breeding. [Book]

Milner, M. (United Nations, Protein Advisory Group) (Editor)
xii+389pp. (1973) [many ref. En] New York, USA; Protein Advisory Group

Papers presented at a symposium sponsored by the Protein Advisory Group and held at the Food and Agriculture Organization, Rome, Italy on 3-5 July, 1972, were grouped under 4 headings: Nutritional importance of legumes for humans; Status and potential for genetic improvement of food legumes; Nutritionally related factors in legumes requiring genetic improvement; and Analytical and mass screening techniques (chemical, biochemical, toxicological, nutritional). Papers presented include: Legumes in human diets and how they might be improved, by R. Bressani (pp. 15-42, 40 ref.); Factors affecting the nutritional value of beans, by W. G. Jaffe (pp. 43-48, 10 ref.); Basic research needed for further improvement of pulse crops in Southeast Asia, by M. S. Swaminathan (pp. 61-68, 8 ref.); Food legumes in Indian agriculture, by M. S. Swaminathan & H. K. Jain (pp. 69-82, 18 ref.); Improvement of food legumes in Tropical Africa, by K. O. Rachie (pp. 83-92, 5 ref.); Food legumes in Latin America, by M. Jalil (pp. 93-100, 7 ref.); University of Illinois international soybean programme, by E. R. Leng (pp. 101-106, 13 ref.); Genetic improvement of *Phaseolus vulgaris*, by A. M. Evans (pp. 107-115, 13 ref.); The Makerere programme, by P. R. Rubaihayo, R. W. Radley, T. N. Khan, J. Mukiibi, C. L. A. Leakey & J. M. Ashley (pp. 117-130, 28 ref.); (Continued in following abstr.) VJG

43

Nutritional improvement of food legumes by breeding. [Book]

Milner, M. (United Nations, Protein Advisory Group) (Editor)
xii+389pp. (1973) [many ref. En] New York, USA; Protein Advisory Group

(Continued from preceding abstr.) Breeding for nutritional improvement, by J. P. Meiners & S. C. Litzenberger (pp. 131-141, 19 ref.); On the quest for quality in the field bean, by M. W. Adams (pp. 143-149, 10 ref.); Cowpeas in Nigeria, by F. A. Bliss (pp. 151-158, 9 ref.); Increasing protein quantity and quality, by J. F. Kelly (pp. 179-184, 14 ref.); Protein quantity and quality in high-yielding beans, by M. H. Dickson & L. R. Hackler (pp. 185-192, 13 ref.); Amino acid profiles of *Cajanus cajan* protein, by W. V. Royes (pp. 193-196, 2 ref.); Breeding for protein quantity and quality in field bean (*Vicia faba*) and barley (*Hordeum vulgare*), by L. Munck, E. Holmberg, K. E. Karlsson, B. Löfqvist & J. Sjödin (pp. 197-204, 3 ref.); The amino acid composition of *Vigna unguiculata* (cowpea) meal in relation to nutrition, by D. Boulter, I. M. Evans, A. Thompson & A. Yarwood (pp. 205-215, 21 ref.); The joint FAO/IAEA programme on the use of nuclear techniques to improve seed protein, by B. Sigurbjornsson & R. Luse (pp. 217-221, 3 ref.); Biological value of legume proteins as influenced by genetic variation, by S. Bajaj (pp. 223-232, 20 ref.); Antitryptic and other antinutritional factors in legumes, by I. Liener (pp. 239-258, 56 ref.); Gas-forming property of food legumes, by D. H. Calloway (pp. 263-270, 24 ref.); Investigations of flatulence properties of different food products, by J. McGinnis (pp. 271-272); (Continued in following abstr.) VJG

44

Nutritional improvement of food legumes by breeding. [Book]

Milner, M. (United Nations, Protein Advisory Group) (Editor)
xii+389pp. (1973) [many ref. En] New York, USA; Protein Advisory Group

(Continued from preceding abstr.) The possible elimination of legume flatulence by genetic selection, by E. L. Murphy (pp. 243-276, 2 ref.); Utilization problems in food legumes, by H. A. B. Parpia (pp. 281-295, 20 ref.); Testa pigments in *Cajanus cajan*: canning quality and flavor, by W. V. Royes (pp. 297-298, 3 ref.); Breeding food legumes for improved processing and consumer acceptance properties, by M. W. Adams & C. L. Bedford (pp. 299-304); Useful procedures and needed improvements, by K. J. Carpenter & J. A. Woolfe (pp. 313-318, 13 ref.); Quantitative relationships between total sulphur and methionine and cystine in legumes, by W. M. Porter, J. Axtell & W. F. Keim (pp. 319, 5 ref.); Enzymatic determination of insoluble, indigestible residue of beans, by E. W. Hellendoorn (pp. 321-324, 7 ref.); Characterizing bean seed proteins as a basis of screening germ plasm, by D. R. Wood & C. V. Cole (pp. 325-332, 11 ref.); Analytical procedures for screening protein quality in cereal grains, by E. Villegas (pp.

335-340, 7 ref.). PAG Statement 22: 'Upgrading human nutrition through the improvement of food legumes' is included. A slightly revised hard bound edition of this book will be published in 1975 by J. W. Wiley & Sons, New York and London. VJG

45

Man, food, and nutrition. [Book]

Rechcigl, M., Jr. (Editor)
344pp. ISBN 0-87819-040-6 (1973) [many ref. En] Cleveland, Ohio, USA; CRC Press Price \$29.95 [Res. & Institutional Grants Div., Agency for Int. Development., US Dept. of State, Washington, DC, USA]

46

Man, food, and nutrition. [Book]

Rechcigl, M., Jr.
344pp. ISBN 0-87819-040-6 (1973) [many ref. En] Cleveland, Ohio, USA; CRC Press Price \$29.95 [Res. & Institutional Grants Div., Agency for Int. Development., US Dept. of State, Washington, DC, USA]
[Continued from preceding abstr.] Increasing output of animal production: relative potential of specific meat-producing animals by region and/or country, by R. W. Phillips (pp. 147-162, 23 ref.); Reducing crop losses, by L. Chiarappa (pp. 163-176, 33 ref.); Reducing food spoilage and deterioration, by J. C. Ayres (pp. 177-188, 11 ref.); Production and use of unconventional sources of food, by N. W. Pirie (pp. 189-202, 12 ref.); Improving nutrient composition of plants, by H. T. Hopkins (pp. 203-214, 71 ref.); Improving nutrient composition of meat-producing animals, by G. A. Lodge (pp. 215-230, 157 ref.); The increased availability of nutrients from plant foodstuffs through processing, by I. E. Liener & M. L. Kakade (pp. 231-241, 90 ref.); Food fortification, by L. J. Teply (pp. 243-249, 31 ref.); Development of highly nutritious products, by R. Bressani & L. G. Elias (pp. 251-274, 87 ref.); Need for food and nutrition policies, by M. Ganzin, J. Perisse & P. Francois (pp. 278-286, 2 ref.). VJG

47

[Research papers in the sphere of the agricultural, nutritional, forestry and wood-processing sciences, and in veterinary science. III. Nutritional sciences.]

Forschungsvorhaben im Bereich der Landbau-, Ernährungs-, Forst- und Holzwirtschaftswissenschaften sowie der veterinärmedizin 1972. III. Ernährungswissenschaften. [Book]
Germany, Federal Republic of, Zentralstelle für Agrardokumentation und -information
iv+166pp. (1972, publ. 1974) [De] Bonn, Federal Republic of Germany; Bundesministerium für Ernährung, Landwirtschaft und Forsten Price DM5 [53 Bonn-Bad Godesberg, Heerstrasse 110, Federal Republic of Germany]

This is a compilation of 664 titles of papers on food science published during 1972 by researchers in 138 research institutes and organizations in the Federal Republic of Germany. The material is divided into Nutritional physiology and chemistry (pp. 1-10), Food chemistry (pp. 11-37), Food technology (pp. 38-91), Food irradiation (pp. 92-97), Quality studies (pp. 98-103), Food hygiene (pp. 104-115), Veterinary science aspects of food science (pp. 116-131) and Miscellaneous (pp. 132-133). A 7-pp. author index and 24-pp. subject index are included. [See FSTA (1974) 6 2A76 for 1971 compilation.] HBr

48

Nutritious foods for everybody. Report of the Calcutta Workshop. [Conference proceedings] Achaya, K. T. (India, Protein Foods Association; Hindustan Thompson Associates Ltd.) 127pp. (1972) [En] Bombay-26, India; Protein Foods Association of India

This book contains the proceedings of a conference organized by the Protein Foods Association of India and held in Calcutta on Nov. 20-21, 1972. The basis for the conference was a survey of food habits in Calcutta carried out by Hindustan Thompson Associates Ltd. The book is divided into 9 chapters: Genesis and strategy of the workshop (pp. 1-4); Inauguration (pp. 5-11); The basis (pp. 13-52); Staples (pp. 53-64); Snack foods (pp. 65-79); Beverages (pp. 81-95); Infant foods (pp. 97-110); Concluding panel discussion (pp. 111-115); and Appendices (pp. 117-127). Individual papers include: Food habits in Calcutta: a summary, by C. Mitra (pp. 15-44); Proposals for the promotion of Special Muri, a low-cost nutritionally fortified food, among residents of the Calcutta Municipal Corporation area, by S. Ghosal (pp. 45-47); Working group report: staple foods as vehicles for better nutrition (pp. 55-60); Working group report: nutritious snack foods (pp. 67-75); Working group report: role of beverages as carriers of nutrients (pp. 83-90); Working group report: concepts for supplementary foods for infants (pp. 99-103); and Constraints in the manufacture and delivery of low-cost nutritious foods (pp. 113-115). JA

49

Diet and coronary heart disease. Report of the Advisory Panel of the Committee on Medical Aspects of Food Policy (Nutrition) on diet in relation to cardiovascular and cerebrovascular disease. [Book]

United Kingdom, Department of Health and Social Security
64pp. ISBN 0-11-320507-4 (1974) [29pp. of ref. En] London, UK; H. M. Stationery Office Price £0.50

The possible implication of a wide range of dietary factors with ischaemic heart disease is reviewed in the 7th Report on Health and Social Subjects. The following dietary changes are recommended for the UK with the aim of

diminishing the risk of ischaemic heart disease: reduction of obesity; reduction of the amount of fat in the diet, especially saturated fat from both animal and plant sources; reduction of consumption of sucrose. The panel could not recommend an increase in intake of polyunsaturated fatty acids, but did recommend caution in any plans to soften the water supply. JMD

50

Food and nutrition research. Report of the ARC/MRC committee. [Book]

Neuberger, A. (United Kingdom, Agricultural Research Council; United Kingdom, Medical Research Council) (Chairman)
xv+211pp. ISBN 0-11-450028-2 & ISBN 0-444-99871-3 (1974) [En] London, UK; H. M. Stationery Office. New York, USA; Elsevier Scientific Publishing Co. Price £3.80

This publication was prepared by the Joint ARC/MRC Committee on Food and Nutrition Research, set up to advise the 2 Councils on research in the field of food and nutrition and its promotion. It is published in report form, as a basis for discussion within the Councils and in the wider scientific community, in preparation for future consideration of policy. The report is divided into 3 parts: The scope and organization of nutrition research (pp. 3-20); Basic problems in nutrition research (pp. 21-98); and Practical problems in human nutrition (pp. 99-181). The information is arranged under the following headings: General considerations (pp. 5-10); The organization of nutrition research in the UK (pp. 11-20); Priorities for research in human nutrition (pp. 18-20); Carbohydrate and fat (pp. 24-41); Protein metabolism and nutrition (pp. 42-65); Vitamins and inorganic nutrients (pp. 66-67); Gut microflora (pp. 95-98); Food consumption and social aspects of nutrition (pp. 101-105); Nutrient requirements (pp. 106-118); Nutritional problems in public health (pp. 119-126); Faulty nutrition as a cause of disease (pp. 127-143); Problems of nutrition in the treatment and management of disease (pp. 144-155); Aspects of food quality (including food additives, contaminants, novel protein foods) (pp. 156-181). VJG

51

Handbook on human nutritional requirements.

Passmore, R.; Nicol, B. M.; Rao, M. N.; Beaton, G. H.; DeMayer, E. M.

FAO Nutritional Studies No. 28, 66pp. (also published in WHO Monograph Series No. 61) (1974) [En] Rome, Italy; Food & Agriculture Organization. Price \$1.00, £0.40 [Univ. Med. School, Edinburgh, UK]

This handbook contains the specific recommendations made by FAO/WHO Expert Groups concerning human requirements for energy (calories) and the following essential nutrients: proteins, vitamins (A₁, D₃, C, B₁, B₁₂, niacin, riboflavin, folates), Ca, Fe, I and F, and other trace elements essential for human nutrition. The book is written in a language intended to be readily

understandable to food administrators, agricultural planners and applied nutritionists. the recommended intakes for various types of person (including pregnant and lactating women) are tabulated at the end of the book. DMK

52

Improvement of protein nutriture. [Book]

United States of America, National Research Council, Committee on Amino Acids
v+201pp. ISBN 0-309-02234-7 (1974) [many ref. En] Washington, DC, USA; National Academy of Sciences Price \$7.25

This book evaluates procedures for improving protein nutritive through fortification of diets with amino acids. Although all members of the Committee on Amino Acids participated in the discussion of each section, the information is presented as a collection of individual papers: Basic concepts, by A. E. Harper (pp. 1-22, many ref.); Nitrogen and amino acid requirements, by H. H. Williams, A. E. Harper, D. M. Hegsted, G. Arroyave, & L. E. Holt, Jr. (pp. 23-63, many ref.); Assessment of protein quality, by D. M. Hegsted (pp. 64-88, 69 ref.); Nutritional significance of alterations in plasma amino acids and serum proteins, by J. M. McLaughlan (pp. 89-108, 80 ref.); Effects of deficiency of protein and amino acids, by G. G. Graham (pp. 109-137, many ref.); Effects of disproportionate amounts of amino acids, by A. E. Harper (pp. 138-166, many ref.); Protein and amino acids in diets, by E. F. Phipard (pp. 167-183, 24 ref.); and Improvement of protein nutritive, by A. E. Harper & D. M. Hegsted (pp. 184-200, 69 ref.). VJG

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Nutrition and our overpopulated planet. [Book]

Manocha, S. L.
xiii+472pp. ISBN 0-398-03180-0 cloth 0-398-03181 paper (1975) [many ref. En] Springfield, Illinois, USA; Charles C. Thomas Price \$24.50 & \$16.75 [Yerkes Regional Primate Res. Center, Emory Univ., Atlanta, Georgia, USA]

This book draws attention to the intimate relationship between nutrition, population and the task of feeding the masses. It should prove interesting and informative to students of sociology, nutrition, medicine, anthropology, biology, political science and history. Chapters included are: Nutrition and our over-populated planet (pp. 3-94, 120 ref.); Feeding the teeming billions (including the green revolution, processed foods based on cereals and oilseeds, traditional foods of animal origin, unconventional foods, food processing and food additives, food safety and toxicity) (pp. 95-178, 53 ref.); Feeding infants and preschool children (including milk and milk substitutes, and supplementary foods for infants) (pp. 179-241, 143 ref.); Feeding the adolescents and adults (pp. 242-326, 150 ref.); Nutrition needs of old age (pp. 327-360, 98 ref.); and Obesity and malnutrition - causes and effects (pp. 361-429, 161 ref.). Appendices include are: 1973 world population data sheet; Nutritive value of commonly eaten foods of animal and plant origin; and Composition of milk. VJG

54

Diet in health and disease: rationale and practice. [Book]

Dickie, R. S.

xiv + 282pp. ISBN 0-398-02899-0 (cloth) 0-398-02919-9 (paper) (1974) [many ref. En] Springfield, Illinois, USA; Charles C. Thomas Price \$17.50 [Univ. of Wisconsin, Center for Health Sci., Wisconsin, USA]

This book is intended for health care practitioners and experienced professionals who are concerned with the delivery of nutritional care. It provides an extension in the use of the exchange system of dietary planning as well as a rapid review of recent literature in the field of diet therapy. Chapters included are: Guidelines for good nutrition (pp. 3-27, 12 ref.); General diet (pp. 28-51, 56 ref.); Liquid diets (pp. 52-64, 36 ref.); Modifications in consistency of foods (pp. 65-89, 35 ref.); Modifications in calories (pp. 90-100, 23 ref.); Modifications in constituents: Protein (pp. 101-156, 7 ref.); Fat (pp. 157-187, 43 ref.); Carbohydrate (including lactose-free and lactose restricted diets) (pp. 188-193, 17 ref.); Diets controlled in protein, fats and carbohydrate (pp. 194-202, 4 ref.); Diets controlled in sodium (pp. 203-219, 13 ref.); and Diets in diagnostic procedures (pp. 220-227). Appendices included are: Keeping current with nutritional literature (pp. 228-234); Information helpful in planning diets for individuals (pp. 235-259); Method used for estimating nutrient values in hospital diets (pp. 260-262); Measures and weights (pp. 263-267); and General references (pp. 268-275). VJG

55

[Nutrition and nutritional disorders in infants and young children.] Ernährung und Ernährungsstörungen im Säuglings- und Kleinkindesalter. [Book] Lothaller, H.

82pp. ISBN 3-85-175-251-1 (1974) [12 ref. De] Vienna, Austria; Verlag Wilhelm Maudrich

The booklet is divided into 3 main sections: Nutrition; Nutrition disorders; and Recipes. The 1st section considers various aspects of breast feeding and bottle feeding of infants, indications for the correct nutrition and development of infants (e.g. wt., size, body temp.), and nutrition in young children and in premature infants. The section on Nutrition disorders includes acute and chronic disorders, vomiting and constipation. The section on Recipes is divided according to whether the infant feeds are self-prepared or ready made. The Booklet is No. 17 in the series Sammlung neuzeitlicher Diätvorschriften DMK

56

[Research projects in agriculture, nutrition, forestry, the timber industry and veterinary medicine, 1973. III. Nutritional Sciences.] Forschungsvorhaben im Bereich der Landbau, Ernährungs-, und Holzwirtschaftswissenschaften

sowie der Veterinärmedizin 1973. III.

Ernährungswissenschaften. [Book]

Germany, Federal Republic of, Zentralstelle für Agrardokumentation und -information iv + 171pp. (Undated) [De] Bonn, Federal Republic of Germany; Bundesministerium für Ernährung, Landwirtschaft und Forsten [53, Bonn-Bad Godesberg, Heerstr. 110, Federal Republic of Germany]

This is a list of 695 food science research projects in progress during 1973 at 162 research institutes and departments in the German Federal Republic. The material is divided into Nutritional physiology and chemistry (pp. 1-12), Food chemistry (pp. 13-42), Food technology (pp. 43-98), Food irradiation (pp. 99-102), Quality studies (pp. 103-107), Food hygiene (pp. 108-119), Veterinary science aspects of food science (pp. 120-135), Nutritional topics relating to foreign countries (p. 136), and Miscellaneous (pp. 137-138). There is an author index (pp. 139-145) and a subject index (pp. 147-171).

ADL

57

Some aspects of the effects of different methods of production and of processing on the nutritive value of food. [Review]

Hollingsworth, D. F.; Martin, P. E.

World Review of Nutrition and Dietetics 15, 1-34 (1972) [many ref. En] [British Nutr. Foundation Ltd., Alembic House, 93 Albert Embankment, London SE1 7TY, UK]

Following an introduction which mentions previous reviews on the subject and recent developments in food production and processing, the topic is reviewed under the following headings: food production (effect of diet on milk and carcass composition, hormone treatment, pre-slaughter treatment of animals, effects of fertilizers and other factors on plant composition, effects of biocides on plant composition, increasing the nutrient content of plants and plant products); storage and transport: and food processing (basic studies, chemical interaction, freeze-drying of foods, freezing of foods, canning processes, UHT-treated milk, irradiation of foods, hydrogenation of fats, the Chorleywood process, other processes, new foods). JA

58

Citrus fruits and processed citrus products in human nutrition. [Review]

Kefford, J. F.

World Review of Nutrition and Dietetics 18, 60-120 (1973) [220 ref. En] CSIRO, Div. of Food Res., N. Ryde, NSW, Australia]

This review is an updated version (to 1971) of that which originally appeared in the *World Review of Nutrition and Dietetics* (1966) 6, 197-249. The first part discusses the dietary significance of constituents of citrus fruits (i.e. vitamins, particularly ascorbic acid, sugars, acids, sugar-acid balance, complex carbohydrates, nitrogenous

constituents, mineral constituents, essential oils, flavonoids, limonoids, suspected allergens and intoxicants). The second part discusses the following processed citrus products: chilled orange juice, frozen citrus juices, chemically preserved citrus juices, canned citrus juices (ascorbic acid and thiamin retention), conc. citrus juices (ascorbic acid retention in frozen concentrates, canned concentrates and reconstituted juices), dried citrus juices, citrus beverages (such as beverages consumed after dilution or without dilution, comminuted drinks, synthetic citrus beverages), processed citrus fruits (canned and glass-packed fruits, marmalades, candied citrus peels), and citrus by-products (stock feed, pectin, citrus seed oil and protein). JA

ALLERGIES

59

The milk-free and milk free egg-free cookbook. [Book]

Sainsbury, I. S.

xi + 148pp. ISBN 0-398-03108-8 (1974) [En]
Springfield, Illinois, USA; Charles C. Thomas Price \$8.95

This cookbook is written to assist the allergist, pediatrician, gastroenterologist or general practitioner in prescribing diets for patients with food allergies or milk intolerances. The book also aims at assisting not only in cooking but also in shopping for milk-free products. The recipes are arranged under the following headings: Breads, biscuits and pancakes (pp. 3-8); Cakes (pp. 9-22); Bar cookies (pp. 23-29); Cookies (pp. 30-45); Confections and frozen desserts, icings-frostings (pp. 46-57); Meats (pp. 58-81); Stuffing (pp. 82-83); Omelettes and vegetables (pp. 84-95); Soups (pp. 96-99); Salads (pp. 100-107); Sandwiches and canapes (pp. 108-112); Desserts (pp. 113-124); Pies (pp. 125-130); Beverages (pp. 131-132); Soybean recipes (pp. 133-135); and Milk-free commercial products (pp. 136-142). VJG

PROTEIN FOODS

60

Optical activity of proteins and other macromolecules. [Book]

Jirgensons, B.

Ed. 2, ix + 199pp. ISBN 3-540-06340-4 (1973) [33pp. of ref. En] Berlin; Springer-Verlag Price DM 59.80 [M. D. Anderson Hospital & Tumor Inst., Dept. of Biochem., Univ. of Texas, Houston, Texas, USA]

This book which is volume 5 in the series 'Molecular Biology Biochemistry and Biophysics', is intended as an introduction to the use of

spectropolarimetric methods and to their applications in molecular biology. Chapters include: The realm of proteins (structural features, optical activity and historical highlights) (pp. 1-9); The phenomena of optical activity (terms and definitions, theoretical considerations, and Drude and Moffitt equations (pp. 10-27); Polarimeters and spectropolarimeters: measurement of optical activity (pp. 28-46); Optical activity of amino acids, peptides and proteins (pp. 47-56); The optical rotatory dispersion of polyamino acids and proteins; measurements in the visible and near ultraviolet spectral zones (pp. 57-65); The far ultraviolet cotton effects of synthetic polyamino acids (pp. 66-74); The cotton effects and conformation of proteins (pp. 75-98); Cotton effects and conformation of nonhelical proteins (pp. 99-123); Optical activity of structural proteins (pp. 124-133); Optical activity of nucleoproteins and histones (pp. 134-145); and Optical activity of glycoproteins and lipoproteins (pp. 146-157). VJG

61

Vegetable protein processing. [Book]

Hanson, L. P.

Food Technology Review, Noyes Data Corporation No. 16, xii + 308pp. ISBN 0-8155-0546-9 (1974) [En] Park Ridge, New Jersey, USA; Noyes Data Corp. Price \$36

This book is based on US patents relating to the processing of proteins of vegetable origin. The information is arranged under the following headings: General processes for vegetable proteins (pp. 2-38); Processing whole soybeans (pp. 39-53); Processing full fat soy products (pp. 54-64); Defatted soy products (pp. 65-88); Soy protein concentrates (pp. 89-106); Soy protein isolates (pp. 107-132); Soy hydrolysates (pp. 133-143); Cottonseed protein (pp. 144-158); Grain proteins (pp. 159-185); Processing other vegetable proteins (including sunflower meal, safflower seeds, sesame seeds, castor beans, peanuts, Brassicaceae, alfalfa protein, coconut protein, mistletoe protein) (pp. 186-214); Extruded fibre processing (pp. 215-235); Other protein fibre production methods (pp. 236-247); Textured protein gels and expanded products (pp. 248-263); and Consumer products (including simulated milk products, dairy-type products, paste spreads, tofu, miso and tempe products, flavouring materials) (pp. 264-301). Company, inventor and US patent number indexes are included. VJG

62

New protein foods. Vol. 1A. Technology. [Book]

Altschul, A. M. (Editor)

xiv + 511pp. ISBN 0-12-054801-1 (1974) [many ref. En] New York, USA; Academic Press, Inc. Price \$32 [Dept. of Community Med. & Int. Health, Georgetown Univ. School of Med. Washington, DC, USA]

This book which is a volume in the Food Science and Technology series, deals with the new protein technologies which affect the utilization of conventional protein foods. It outlines opportunities and problems likely to occur in the near future. Chapters included are: Protein food technologies and the politics of food: an overview, by A. M. Altschul (pp. 1-38, 42 ref.); The amino acid fortification of cereals, by G. R. Jansen (pp. 39-120, many ref.); The amino acid fortification of intact cereal grains, by H. Mitsuda & K. Yasumoto (pp. 121-154, 91 ref.); The protein enrichment of bread and baked products, (including cereal proteins, egg and milk proteins, oilseed proteins, fish proteins less conventional proteins, synthetic amino acids and composite flours) by J. H. Hulse (pp. 156-229, many ref.); Legume foods, by R. Bressani & L. G. Elias (pp. 231-297, many ref.); New approaches to the marketing of red meats, by F. E. Deatherage (pp. 298-336, 96 ref.); New approaches to marketing poultry products (including meat and eggs), by A. W. Brant (pp. 337-365, 44 ref.); Meat analogues, by F. E. Horan (pp. 367-413, 92 ref.); New protein food technologies in Japan (including tofu, miso, kamaboko and fish sausage-fish jelly, textured vegetable protein, and hydrolysed vegetable protein) by T. Watanabe, H. Ebine, & M. Okada (pp. 414-453, 77 ref.); and Regulatory aspects of new protein foods by P. B. Hutt (pp. 454-480, 7 ref.). VJG

CATERING

63

Foundations of food preparation. [Book]
Peckham, G. C.

3rd edition ix+546pp. ISBN 0-02-39270-8 (1974) [many ref. En] New York, USA; Macmillan Publishing Co. Inc. & London, UK; Collier-Macmillan Publishers. Price £5.95 [New York Univ., New York, USA]

This revised third edition is designed for the first college course in food preparation. The subject matter is divided into 6 parts: Science and food; Factors affecting food consumption; Management in food preparation; Preparation of foods and food products; Food preservation; and Food controls. Chapters included are: Composition of food (pp. 6-10, 4 ref.); Purposes of cooking food (pp. 11-13, 4 ref.); Water (pp. 14-19, 9 ref.); Use of heat in cookery (pp. 20-26, 4 ref.); Physical and chemical properties of food (pp. 27-37, 5 ref.); Solutions (pp. 38-41, 3 ref.); Colloidal systems (pp. 42-50, 6 ref.); Microbiological aspects of food preparation (pp. 51-59, 13 ref.); Consumer practices (pp. 63-72, 9 ref.); Food acceptance (pp. 73-76, 4 ref.); Color in food (pp. 77-83, 8 ref.); Texture in food (pp. 84-87, 8 ref.); Flavor in food (pp. 88-96, 13 ref.); Management principles (pp. 99-104, 14 ref.); Kitchen planning and equipment (pp. 105-120, 13 ref.); Food preparation (pp. 123-130,

11 ref.); Measuring techniques (pp. 131-135); Beverages (pp. 136-148, 15 ref.); Fruits (pp. 149-170, 15 ref.); Vegetables (pp. 171-196, 17 ref.); Cereals and cereal products (pp. 197-206, 8 ref.); Starch (pp. 207-212, 4 ref.); Eggs (pp. 213-230, 15 ref.); Milk (pp. 231-240, 8 ref.); Cheese (pp. 241-250, 8 ref.); Meat (pp. 251-282, 20 ref.); [continued in following abstr.] VJG

64

Foundations of food preparation. [Book]
Peckham, G. C.

3rd edition ix+546pp. ISBN 0-02-393270-8 (1974) [many ref. En] New York, USA; Macmillan Publishing Co. Inc. & London, UK; Collier-Macmillan Publishers. Price £5.95 [New York Univ., New York, USA]

[Continued from preceding abstr.] Poultry (pp. 283-290, 10 ref.); Fish (pp. 291-304, 19 ref.); Fats and oils used in cookery (pp. 305-316, 14 ref.); Pastry (pp. 317-325, 11 ref.); Flour (pp. 326-330, 3 ref.); Leavening agents (pp. 331-335, 3 ref.); Flour mixtures: quick breads (pp. 336-346, 5 ref.); Flour mixtures: cakes and cookies (pp. 347-360, 10 ref.); Flour mixtures: yeast-leavened bread, rolls, and cake (pp. 361-370, 6 ref.); Prepared mixes (pp. 371-378, 14 ref.); Sugar and sugar cookery (pp. 379-386, 7 ref.); Gelatin and gelatin dishes (pp. 387-391, 2 ref.); Frozen desserts (pp. 392-398, 3 ref.); Principles of food preservation (pp. 401-412, 11 ref.); Food additives (pp. 413-419, 10 ref.); Freezing food in the home (pp. 420-433, 11 ref.); Canning food in the home (pp. 434-444, 4 ref.); Jams, jellies, and preserves (pp. 445-450, 6 ref.); Government food controls (pp. 453-465, 10 ref.); Food packaging (pp. 466-476, 9 ref.). Appendices included are: Glossary of food terms (pp. 479-486); Reference tables of weights and measurements for food (pp. 487-494); Recipes (pp. 495-510); and Serving food (pp. 511-524). VJG

65

Menu design. Merchandising and marketing. [Book]
Seaberg, A. G.

389pp. 2nd edition. ISBN 0-8436-0572-3 (1973) [En] Boston, Massachusetts, USA; Cahnners Books Price £8.30 [Seaberg Menu Res. Service, Highland Park, Illinois, USA]

This book, newly revised, expanded and updated, is the comprehensive guide to all phases of menu preparation including design, writing, production and printing, paper choice, type selection and illustrations. In addition to presenting practical answers to a wide variety of menu problems, this edition contains new sections on room service menus, special occasion menus, the German menu and the Mexican-Spanish menu. Other aspects considered are: selling other things on the menu; continentalizing the menu; merchandizing low calorie items and steak; wine

lists; describing seafood; various menus - breakfast, children's, hospital, Italian-American, Chinese-Oriental, fast-food-multiple operation and flexible menus; various foods on menus - sandwiches, appetizers, salads and desserts; after dinner drinks; a la carte and complete dinners; and menu prices. The book publishes data from a variety of food service operations that provide an invaluable foundation for important marketing decisions. A collection of 'clip art' illustrations and headings is included. These can be cut from the book and given to the printer for menu illustration. Sample menus from all types of foodservice operations are presented. VJG

6 6

Foodservice for the extended care facility. [Book]

Kotschevar, L. H.
509pp. ISBN 0-8436-0548-0 (1973) [67 ref. En]
Chicago, Illinois, USA; Institutions/Volume
Feeding Magazine Price \$19.95

This book aims at providing information on the operation of food services in small extended care facilities. Chapters included are: Health care and the extended care facility (pp. 3-18, 7 ref.); Management, supervision and personnel (pp. 19-80, 9 ref.); Foodservice controls (pp. 81-107, 4 ref.); Nutrition (pp. 108-133, 6 ref.); Menu planning (pp. 134-236, 15 ref.); Food production principles (pp. 237-278, 12 ref.); Purchasing (pp. 279-346, 8 ref.); Sanitation (pp. 347-399, 10 ref.); Safety (pp. 400-417); Layout and equipment (pp. 418-480, 12 ref.). An appendix: Conditions of participation - extended care facilities - Regulations, US Department of Hew, is included. VJG

6 7

Standards, principles and techniques in quantity food production. [Book]

Kotschevar, L. H.
Ed 3, x+661pp. ISBN 0-8436-8589-8 (1974)
[many ref. En] Boston, Massachusetts, USA;
Cahners Publishing Co. Inc. Price \$16.00 [School
of Hotel, Restaurant, & Institutional Management,
Michigan St. Univ., Michigan, USA]

This third edition, which has been completely revised and updated to include information on the newest foods and food production systems on the market, includes new sections on nutrition, safety, and sanitation. It is intended to be an operation guide for food production managers and a textbook for students. The book is divided into 3 sections: Management in quantity food production (pp. 3-171); Kitchen production (pp. 175-395); and Bakeshop production (pp. 399-582). Chapters included are: Planning (pp. 3-58, 24 ref.); Work methods (pp. 59-85, 4 ref.); Sanitation and safety (pp. 86-97, 13 ref.); Nutrition (pp. 98-111, 3 ref.); Cooking and heat (pp. 112-124, 6 ref.); Quantity food equipment (pp. 125-171, 4 ref.); Pantry production (pp. 175-220, 18 ref.); Stocks, soups,

saucers, and gravies (pp. 221-249, 9 ref.); Beverages (pp. 250-269, 22 ref.); Eggs and dairy products (pp. 270-297, 6 ref.); Vegetable cookery (pp. 298-330, 6 ref.); Deep-frying and sauteing (pp. 331-345, 6 ref.); Meat, fish and poultry (pp. 346-395, 12 ref.); Bakery ingredients (pp. 399-430, 8 ref.); Breads (pp. 431-477, 10 ref.); Cakes, cookies, and decorations (pp. 478-524, 10 ref.); Pies and pastry (pp. 525-543, 10 ref.); Desserts (pp. 544-582, 7 ref.). A glossary (pp. 623-652) is included. VJG

6 8

School foodservice. [Book]

Egmond, D. van
vii+408pp. ISBN 0-87055-160-4 (1974) [many
ref. En] Westport, Connecticut, USA; AVI
Publishing Co. Inc. Price \$30 (USA) \$31 (foreign)
[Prince George's County Public Schools, Maryland,
USA]

This book endeavours to bring together much of the available information on the school foodservice for the convenience of students in correspondence courses, in vocational training courses, and in colleges and universities. Chapters included are: Overview and history of school foodservice (pp. 1-25, 29 ref.); Organization management (pp. 26-44, 22 ref.); Personnel management (pp. 45-73, 15 ref.); Work planning and simplification (pp. 74-95, 9 ref.); Nutrition (pp. 96-117, 17 ref.); Menu planning (pp. 118-144, 14 ref.); Purchasing food (pp. 145-183, 21 ref.); Food preparation (pp. 184-218, 16 ref.); Sanitation (pp. 219-237, 16 ref.); Cost management (pp. 238-269, 8 ref.); The foodservice management company (pp. 270-282, 15 ref.); Food systems (pp. 283-316, 12 ref.); Planning foodservice facilities (pp. 317-331, 9 ref.); and Equipment (pp. 332-371, 8 ref.). 4 appendices are included: National School Lunch Act Public Law 396 - 79th Congress; Child Nutrition Act of 1966, as amended; National School Lunch Act, as amended; and Milk Bid Sample. VJG

6 9

[Preserved products for use in communal feeding.]

Konservirovannye produkty dlya obshchestvennogo pitaniya. [Book]

Anon.
199pp. (1973) [30 ref. Ru] Moscow, USSR;
Pishchevaya Promyshlennost'. Price 1.26r

This book includes the following chapters:
Research into the production of convenience foods and semi-preserved products in large packages for use in communal feeding enterprises (pp. 7-27);
Research into the manufacture of quick frozen vegetable dishes to be used in communal feeding (pp. 27-39);
Microbiological control of preserved foods in large packages (pp. 40-49);
Microbiological aspects of canned vegetables production for communal feeding (pp. 49-56);
Mechanized line for the production of sterilized food products in large packages (pp. 57-65);
Prospects for use of fruit products and quick frozen

semi-preserved products in communal feeding (pp. 66-71); Heat sterilization methods for the preservation of fruit and vegetables in large packages (pp. 77-99); Sterilized baby food based on fruit and vegetables (pp. 100-110); Principles of production and storage of frozen products (pp. 111-140); Frozen ready-to-serve dishes (pp. 141-144); Equipment for industrial production of convenience foods, for defreezing and heating of frozen meals (pp. 145-158); and Use of frozen semi-products and ready-to-serve dishes in communal feeding (pp. 159-169). STI

70

Contemporary meal management. [Book]

Kramer, M.; Spader, M.

viii + 390pp. ISBN 0-471-50680-X (1972) [many ref. En] New York, USA; John Wiley & Sons, Inc. Price £6.30 [California St. Coll., Los Angeles, California, USA]

The information on meal management presented in this book is divided into the following 6 parts: A legacy for American meals (pp. 5-58); The role of nutrition (pp. 63-97); Food economics (pp. 101-152); Marketing for food (pp. 157-269); Kitchen management (pp. 273-309); and The serving of food: hospitality and etiquette (pp. 313-347). Chapters included are: Meal management and social change (pp. 5-11, 4 ref.); The uses of history (pp. 13-22, 14 ref.); Foreign influences on American tables (pp. 23-31, 17 ref.); World cuisines: the Far East (pp. 33-43, 31 ref.); World cuisines: West and Middle East (pp. 45-58, 66 ref.); The positive way to health (pp. 63-76, 10 ref.); From laboratory to dining table (pp. 77-88, 9 ref.); The dimensions of meal planning (pp. 89-97, 8 ref.); How food prices are determined (pp. 101-111, 4 ref.); Managing the food dollar (pp. 113-129, 8 ref.); The challenge of limited income (pp. 131-152, 15 ref.); The meat group (pp. 157-181, 23 ref.); Dairy foods and protein alternates (pp. 183-200, 11 ref.); Vegetables and fruits (pp. 201-232, 7 ref.); Cereals and breads (pp. 233-253, 11 ref.); Miscellaneous foods (pp. 255-269, 6 ref.) [Continued in following abstr.] VJG

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Contemporary meal management. [Book]

Kramer, M.; Spader, M.

viii + 390pp. ISBN 0-471-50680-X (1972) [many ref. En] New York, USA; John Wiley & Sons, Inc. Price £6.30 [California St. Coll., Los Angeles, California, USA]

[Continued from preceding abstr.] Food care in the home (pp. 273-285, 14 ref.); Kitchen organization (pp. 287-294, 11 ref.); Time management (pp. 295-300, 12 ref.); Serving food creatively (pp. 313-324, 12 ref.); Family meals (pp. 325-330, 10 ref.); Hospitality in the home (pp. 331-339, 8 ref.); and Manners, yesterday and today (pp. 341-347, 5 ref.). An appendix covers the following

topics: Legislative information; Federal agencies serving consumer needs; Food stamp Programme; Resources for food information; Standards for Meat and Poultry products; Foreign menu terms; and Metric measurements. VJG

72

Food service facilities planning. [Book]

Kazarian, E. A.

vii + 230pp. ISBN 0-87055-168-X (1975) [many ref. En] Westport, Connecticut, USA; AVI Publishing Co., Inc. Price \$16 (US) \$17 (Foreign) [School of Hotel, Restaurant & Institutional Management, East Lansing, Michigan, USA]

This book presents a systematic procedure for the planning of food service facilities. It is primarily intended as a text for classroom instruction, but should also be useful as a reference source for architects, food service consultants, interior designers and others involved in planning food facilities. Chapters included are: Introduction to food facilities planning (pp. 1-15, 7 ref.); The planning process (pp. 16-30, 6 ref.); The planning team (pp. 31-42, 4 ref.); Preparing the prospectus (pp. 43-57, 5 ref.); The feasibility study (pp. 58-72, 6 ref.); Planning of functions (pp. 73-86, 5 ref.); Planning the atmosphere (pp. 87-112, 5 ref.); Workplace design (pp. 113-126, 6 ref.); Equipment requirements (pp. 127-143, 7 ref.); Space requirements (pp. 144-154, 4 ref.); Layout of facilities (pp. 155-167, 5 ref.); and Example food service layouts (pp. 168-190). 3 appendices are included: Typical portion sizes for menu items (pp. 191-192); Information for developing a food service prospectus (pp. 193-197); and Listing of tasks commonly performed in food service facilities (pp. 198-226). VJG

CHEMISTRY

73

Lists of volatile compounds in food. [Book]

Straten, S. van; Vrijer, F. de (Netherlands, Centraal Instituut voor Voedingsonderzoek) 550pp. (1973) [many ref. En] Zeist, Netherlands; Centraal Inst. voor Voedingsonderzoek

This third edition of 'Lists of volatile compounds in food' is issued as Report No. R 4030 of the Centraal Instituut voor Voedingsonderzoek, Zeist, Netherlands. 90 food products are numbered and divided into groups under the following headings: fruits, vegetables, spices, bread, milk products and eggs, fish and meat, alcoholic beverages, and other products. The individual products are arranged alphabetically under each heading. References are arranged in chronological order and then in alphabetical order within each yr. Under each food heading all published compounds occurring in the aroma are listed under the chemical headings: hydrocarbons, alcohols, carbonyls, acids, esters, bases and miscellaneous. Numbers corresponding to the references are listed after each compound. VJG

74

[Textbook of food chemistry.] Lehrbuch der**Lebensmittelchemie. [Book]**

Schormüller, J.

2nd Ed. xv+831pp. ISBN 3-540-06601-2 (1974)

[179 ref. De] Berlin (West); Springer-Verlag;

Price DM98 [Inst. für Lebensmittelchem., Tech.

Univ., Berlin (West)]

This second, completely revised edition of this textbook is divided into the following chapters: The development of food science (pp. 1-9); The constituents of foods (pp. 10-219); Basic principles of nutrition (pp. 220-239); Processing and preparation of foods (pp. 240-254); Preservation of food (pp. 255-309); Food colorants (pp. 310-312); Foods of animal origin (pp. 313-424); Edible fats and oils (pp. 425-455); Foods of plant origin (pp. 456-721); Drinking water and process water (pp. 722-750); Air (pp. 751-767); and Items of utility [utensils, packaging materials, etc.] (pp. 768-779). A 46-page subject index is included. AJDW

75

Compilation of odor and taste threshold values data. [Book]

Stahl, W. H. (United States of America, American Society for Testing & Materials) ((Editor))

v+250pp. (1973) [En] Philadelphia, Pennsylvania, USA; Price \$25; £12

The book, ASTM Data Series DS 48, contains tabulated threshold data of odour and taste; such data may be incorporated into regulatory specifications to define permissible odour limits, for example, from diesel-powered equipment or industrial waste discharges. Reliability of many of the values listed is questionable since experimental procedures and precautions followed in obtaining the data were seldom described in unequivocal terms. Standardization of test conditions is recommended. A clear consistent definition of threshold terminology is given. The book is divided into 3 sections, the first of which consists of an alphabetical listing of compounds together with a code number for each compound. The 2nd section is a table containing the code (acquisition) number and codes for modality (odour and taste), threshold type (detection, recognition, others), media, purity, threshold values and threshold units; it also contains mol. wt., Wiswesser Line Notation (WLN) and a reference for each compound. The 3rd section is a WLN permutation of threshold chemicals. DMK

76

Proteins. Structure and function. [Book]

Light, A.

viii+165pp. ISBN 0-13-731711-5 (1974) [many ref. En] Englewood Cliffs, New Jersey, USA; Prentice-Hall, Inc. Price £3.50 [Dept. of Chem., Purdue Univ., West Lafayette, Indiana, USA]

This book is written at a level which presupposes an adequate undergraduate preparation in chemistry and can be used to accompany a general biochemistry course. The book considers selected topics and does not attempt to provide a complete survey of the subject. Chapters included are: Basic principles of protein chemistry (pp. 1-23, 16 ref.); Purification of proteins (pp. 24-41, 9 ref.); Molecular weight determinations (pp. 42-57, 15 ref.); Amino acid analysis (pp. 58-69, 11 ref.); Sequence studies - introductory remarks (pp. 70-74, 8 ref.); Modification of disulphide bonds (pp. 75-83, 7 ref.); Degradation of a protein to a mixture of peptides (pp. 84-96, 5 ref.); Separation of peptides (pp. 97-106, 6 ref.); Sequence analysis (pp. 107-121, 11 ref.); Disulphide bond assignments and the diagonal electrophoretic technique (pp. 122-129, 7 ref.); and Structure and function and the molecular evolution of proteins (pp. 130-157, 20 ref.). VJG

77

Methods of gel electrophoresis of milk proteins.**[Book]**

Swaigood, H. (Editor)

33pp. (Undated) [many ref. En] Urbana, Illinois, USA; American Dairy Science Association [Dept. of Food Sci., N. Carolina St. Univ., Raleigh, N. Carolina 27607, USA]

Following an introduction by H. Swaigood, in which a few principles of gel electrophoresis are briefly examined, the Bulletin is divided into 5 main sections in which details of different procedures of gel electrophoresis are described. Gel electrophoresis in horizontal starch beds (pp. 3-9): Procedure I, by R. D. Kearney; II, by C. Alais & J. Guerin; and III, by D. G. Schmidt & P. Both. Gel electrophoresis in horizontal polyacrylamide beds (pp. 10-11): Procedure I, by N. Melachouris. Gel electrophoresis in vertical starch beds (pp. 12-13): Procedure I, by C. V. Morr. Gel electrophoresis in vertical polyacrylamide beds (pp. 14-20): Procedure I, II and III, by C. A. Kiddy; and IV, by C. V. Morr & P. B. Manning. Special applications of gel electrophoresis (pp. 21-33): Polyacrylamide gel electrophoresis of immunoglobulins. A. Disc-gel electrophoresis. B. Disc-gel electrophoresis in 10 M urea, by J. E. Butler; Disc-gel electrophoresis of minor milk proteins, by M. L. Groves; and Acrylamide gel electrophoresis in a pH gradient: isoelectric focusing, by R. F. Peterson. DMK

ANALYSIS

78

Instrumental methods of food analysis. [Book]

MacLeod, A. J.

v+802pp. ISBN 0 236 15410 9 (1973) [many ref. En] London, UK; Elek Science. Price £12.00 [Dept. of Chem., Queen Elizabeth Coll., Univ. of London, UK]

This book is intended for students in food analysis, food science and related subjects.

Chapters included are: Introduction (pp. 1-11, 2 ref.); Sample preparation (pp. 12-23, 52 ref.); Chromatography and electrophoresis (including paper chromatography, TLC, column chromatography, gel permeation chromatography, electrochromatography, thin layer electrophoresis) (pp. 24-246, 636 ref.); Gas chromatography (pp. 247-373, 473 ref.); Ultraviolet and visible absorption spectroscopy and fluorescence analysis (pp. 374-624, 1137 ref.); Atomic absorption spectroscopy and flame photometry (pp. 625-661, 74 ref.); and Miscellaneous analytical methods (including polarography, radiochemical techniques, IR absorption spectrophotometry, NMR spectroscopy, MS, refractometry, polarimetry, and automated analysis) (pp. 662-766, 394 ref.). At the end of each analytical chapter are tables which list selections of the more important and useful methods of food analysis which have been published in recent yr. These tables indicate the nature of the analysis, the experimental conditions for the procedure, components determined and foods in which they were found. An index of food analysis references is given (pp. 767-780). VJG

79

[Physical and technical principles of humidity measurements in the food industry.] *Fisiko-tekhnicheskie osnovy vlagometrii v pishchevoi promyshlennosti.* [Book]
Fedotkin, I. M.; Klochkov, V. P.
320pp. (1974) [112 ref. Ru] Kiev, USSR; Izdatel'stvo "Tekhnika". Price 1.45r

This book is intended for technicians and scientific workers in the food industry engaged in the problem of moisture measurement and automation of processes connected with moisture, and may also serve specialists in these and various other fields. The book includes the following chapters: The character and condition of moisture in food materials (pp. 7-57); Methods of measuring moisture content in gases, liquids and solid materials (pp. 58-173); Methods of moisture detn. in food materials by means of IR spectrophotometry (pp. 174-193); Measuring moisture in food materials by means of NMR (pp. 194-206); Measuring moisture in food materials using the radioactivity of neutrons dissemination and delta and gamma rays absorption (pp. 207-223); Measuring moisture in food materials using microwave ultra high frequency techniques (pp. 223-302). STI

80

Analytical methods for the soup industry. [Book]
International Association of the Broth & Soup Industry; Switzerland, Association of Swiss Soup Manufacturers
Ed. 2, 74pp. (1973) [18 ref. En] Berne, Switzerland; Assoc. of Swiss Soup Manufacturers
Price £8.60

This book is a reprint of the first edition methods but with the inclusion of new methods developed in the meantime, especially microbiological methods. The information is arranged under the following headings: Sampling; Meat extract (organoleptic examination, dry wt., ash, chloride content and total creatinine); Broth and meat broth products (bouillon products) (organoleptic examination, dry wt., ash, chloride content, total creatinine, total N, amino N, ammoniacal N, total glutamic acid, amino acids, fat content and synthetic dyestuffs); Soup seasonings (organoleptic examination, dry wt., ash, chloride content, total N, and amino and ammoniacal N); Soups (organoleptic examination, dry wt., ash and sand, chloride content, total N, glutamic acid, fat content, total creatinine and synthetic dyestuffs); Antioxidants; Raw materials (sulphate ash and crude sand); and Microbiological methods (total count, *Escherichia coli*, *Salmonella*, *Staphylococcus aureus* and *Clostridium perfringens*). VJG

81

Official methods of analysis of the Association of Official Analytical Chemists. [Book]
Horwitz, W.; Senzel, A.; Reynolds, H.; Park, D. L. (Editors)
Ed. 12, xxi + 1094pp. (1975) [En] Washington, DC, USA; Association of Official Analytical Chemists Price \$40

This twelfth edition contains all methods of analysis approved through the 1973 meeting. It contains an accumulation of only 4 yr of approved methods rather than the customary five, since more methods were adopted during the last 4 yr (about 280) than were approved in the previous 5 yr. The number of chapters has been increased from 47 to 52. In this edition indexing is by section numbers. The methods are grouped under the following chapter headings: Agricultural liming materials (pp. 1-7, 12 ref.); Fertilizers (pp. 8-33, 60 ref.); Plants (pp. 34-56, 43 ref.); Disinfectants (pp. 57-71, 10 ref.); Hazardous substances (pp. 72-75, 6 ref.); Pesticide formulations (pp. 76-128, 99 ref.); Animal feed (pp. 129-146, 39 ref.); Baking powders and baking chemicals (pp. 147-151, 11 ref.); Beverages: distilled liquors (pp. 152-168, 25 ref.); Beverages: malt beverages and brewing materials (pp. 169-193, 28 ref.); Beverages: wines (pp. 194-202, 17 ref.); Beverages: nonalcoholic and concentrates (pp. 203-207, 8 ref.); Cacao bean and its products (pp. 208-221, 22 ref.); Cereal foods (pp. 222-245, 53 ref.); Coffee and tea (pp. 246-250, 11 ref.); Dairy products (pp. 251-292, 63 ref.); Eggs and egg products (pp. 293-304, 23 ref.); Fish and other marine products (pp. 305-327, 32 ref.); Flavours (pp. 328-348, 50 ref.); Food additives: direct (pp. 348-384, 56 ref.); [continued in following abstr.] VJG

82

Official methods of analysis of the Association of Official Analytical Chemists. [Book]

Horwitz, W.; Senzel, A.; Reynolds, H.; Park, D. L. (Editors)

Ed. 12, xxi+1094pp. (1975) [En] Washing, DC, USA; Association of Official Analytical Chemists
Price \$40

[Continued from preceding abstr.] Food additives: indirect (pp. 385-390, 3 ref.); Fruits and fruit products (pp. 391-414, 45 ref.); Gelatin, dessert preparations, and mixes (pp. 415-416, 3 ref.); meat and meat products (pp. 417-427, 15 ref.); Metals and other elements as residues in foods (pp. 428-461, 27 ref.); Natural poisons (pp. 462-482, 20 ref.); Nuts and nut products (pp. 483-484, 7 ref.); Oils and fats (pp. 485-517, 66 ref.); Pesticide residues (pp. 518-552, 33 ref.); Spices and other condiments (pp. 553-563, 21 ref.); Sugars and sugar products (pp. 564-596, 56 ref.); Vegetable products, processed (pp. 597-605, 19 ref.); Waters, mineral; and salt (pp. 606-628, 17 ref.); Colour additives, (pp. 629-645, 27 ref.); Drugs and feed additives in animal tissues (pp. 768-774, 6 ref.); Drugs in feeds (pp. 775-815, 63 ref.); Vitamins and other nutrients (pp. 816-859, 29 ref.); Extraneous materials: isolation (pp. 860-900, 75 ref.); Microbiological methods (pp. 903-921, 9 ref.); Microchemical methods (pp. 922-932, 14 ref.); Radioactivity (pp. 933-940, 8 ref.); Spectroscopic methods (p. 941, 1 ref.); Standard solutions and materials (pp. 942-948, 17 ref.); Laboratory safety (pp. 949-955, 10 ref.); and Reference tables (pp. 957-1041). [See FSTA (1971) 3 7A293 for previous edition.] VJG

83

[Food analysis. Vol. 1. Optical methods.]

Lebensmittelanalytik. Band 1. Optische Methoden. [Book]

Maier, H. G.

viii+71pp. ISBN 3-7985-0378-8 (1974) [De] Darmstadt, Federal Republic of Germany; Dr Dietrich Steinkopff Verlag; Price DM9.80 [Inst. fu Lebensmittelchemie, Tech. Univ., Brunswick, Federal Republic of Germany]

This 1st vol. of a series planned to cover all methods of food analysis is the 2nd revised edition of 'Leitfaden moderner Methoden der Lebensmittelanalytik (Optische Methoden)', Darmstadt 1966. It is intended in the first instance for students and technicians, but also as a short and practical introduction to the topic for all persons with an interest in food analysis. Principles and practical application of light absorption measurement, fluorimetry, flame photometry, polarimetry and refractometry are presented, each illustrated by examples of experimental procedures based on laboratory exercises of the Food Chemistry Institute of Frankfurt University. Atomic absorption spectrophotometry is briefly considered, and a useful 4pp. index is appended. SKK

RESIDUES

84

Toxicants occurring naturally in foods. [Review]
Strong, F. M.

Nutrition Reviews 32 (8) 225-231 (1974) [38 ref. En] [Coll. of Agric. and Life Sci., Univ. of Wisconsin, Madison, 53706, USA]

See FSTA (1974) 6 6C190 & 6C191 for full version.

85

Isotope tracer studies of chemical residues in food and the agricultural environment. [Conference proceedings]

Food & Agriculture Organization; International Atomic Energy Agency
156pp. (1974) [many ref. En] Vienna, Austria; International Atomic Energy Agency Price 146sch, \$7.50, £3.20, 35F, DM21

This book contains proceedings and a report of research coordination meetings on the fate and significance of foreign substances in the environment, organized by the joint FAO/IAEA division of Atomic Energy in Food and Agriculture, held in Ispra, Italy on 30th Oct. - 10th Nov., 1972. The publication is arranged in various parts (e.g. Food. Environment), and contains the following papers: Significance of fumigant residues in animal feed, by E. Alumot, E. Nachtom, R. Bielorai and Z. Harduf (pp. 3-10, 10 ref.); Isotopic syntheses with particular reference to ¹⁴C, by A. Benakis (pp. 11-19); Residues in cereals exposed to hydrogen phosphide, by K. S. Fowler and R. W. Disney (pp. 21-23, 3 ref.); Effect of time of storage on the recovery of malathion from treated wheat, by D. F. Horler and J. S. Clark (pp. 25-27, 4 ref.); The fate of diazinon applied to rice plants, by H. Huque (pp. 29-32); Cyclo-diene and other residues in growing crops, by W. Klein (pp. 33-46); Terminal residues of malathion on tea, by A. H. Manchanda (pp. 47-50, 12 ref.). [Continued in following abstr.] GL

86

Isotope tracer studies of chemical residues in food and the agricultural environment. [Conference proceedings]

Food & Agriculture Organization; International Atomic Energy Agency
156pp. (1974) [many ref. En] Vienna, Austria; International Atomic Energy Agency Price 146sch, \$7.50, £3.20, 35F, DM21

[Continued from previous abstr.] Influence of processing on the DDT content of meat products, by A. Mirna and K. Cornettia (pp. 51-58, 10 ref.); Fate and significance of labelled insecticide residues in rice, by C. Tomizawa, T. Endo and H. Naka (pp. 59-64); Radiotracer-aided studies on the comparative metabolism of dieldrin analogues by

vertebrates, by C. W. Walker, G. A. El-Zorgani and J. Kenny (pp. 65-66); Environmental fate of organic chemicals with particular reference to growing crops, by F. Korte (pp. 69-79); Micropollutant interaction with microbes, by R. Kokke (pp. 81-85, 3 ref.); Fate and significance of mercury residues in an agricultural ecosystem, by L. Kosta, V. Zelenko, P. Stegnar, V. Ravnik, M. Dermelj and A. R. Byrne (pp. 87-102, 24 ref.); Fate of pesticide residues in viticulture, by J. Kovacs, F. Antoni, I. Vincze, H. Altmann and I. A. Haroun (pp. 103-110); The fate and significance of triazine herbicides in plant systems as determined by isotope tracer-aided studies, by S. K. Ries, V. Wert and E. L. Pulver (pp. 111-112, 7 ref.); [Continued in following abstr.] GL

87

Isotope tracer studies of chemical residues in food and the agricultural environment. [Conference proceedings]

Food & Agriculture Organization; International Atomic Energy Agency
156pp. (1974) [many ref. En] Vienna, Austria; International Atomic Energy Agency Price 146sch, \$7.50, £3.20, 35F, DM21

[Continued from previous abstr.] The fate of toxic elements in aquatic systems, by K. Rissanen (pp. 113-118, 16 ref.); Note on tracer-aided studies of the movement of toxic elements in soil-plant-water systems under controlled conditions, by J. W. B. Stewart, D. A. Rennie, E. H. Halstead and P. M. Huang (pp. 119-120); Uptake of absorbed monolinuron by plants, by A. Suss, B. Grampp, H. Siegmund and C. Eben (pp. 121-124); and Assay of pesticide residues and potentialities of stable-isotope-labelled pesticides for environment studies: note on analytical techniques, by G. Widmark (pp. 125-127, 3 ref.). Parts 3, 4 and 5 respectively consist of a report, recommendations and appendices which include a list of participants. GL

88

Comparative studies of food and environmental contamination. Proceedings of a symposium on nuclear techniques in comparative studies of food and environmental contamination, held in Otaniemi, Finland, 27-31 August, 1973.

[Conference proceedings]
Food & Agriculture Organization; International Atomic Energy Agency; World Health Organization
623pp. (1974) [many ref. En] Vienna, Austria; International Atomic Energy Agency Price 550sch; £12.00; 140F; DM75; \$27

This book contains proceedings of a symposium held to review inputs, fates and significance of a representative range of chemical and some radioactive contaminants of food and the environment. 9 sessions covered: General ecochemical aspects; Aquatic systems; Soils, plants and foods; Multi-element analysis; Comparative

metabolism and toxicology with special reference to possible joint action of contaminants; Comparative aspects of radioactive and non-radioactive contamination. Individual papers included: Global inputs and burdens of chemical residues in the biosphere: The problem and control measures, by F. Korte (pp. 3-22, 5 ref.); Radioisotope techniques to evaluate the environmental behaviour of cadmium, by R. I. van Hook, Jr., B. G. Blaylock, E. A. Bondietti, C. W. Francis, J. W. Huckabee, D. E. Reichle, F. H. Sweeton & J. P. Witherspoon (pp. 23-42, 28 ref.); A study of organochlorine insecticide residues in Uganda, with special reference to dieldrin and DDT, by J. M. S. Sserunjogi (pp. 43-48, 3 ref.); Radioecological investigations on the upper reaches of the River Danube, by K. Hübner, M. Ruf & H. Herrmann (pp. 105-122, 10 ref.); Mercury pollution of the aquatic environment in Finland, by E. Häsänen (pp. 149-157, 20 ref.); Experimental studies on cadmium flux through marine biota, by S. W. Fowler & G. Benayoun (pp. 159-178, 33 ref.); [continued in following abstr.] CRI

89

Comparative studies of food and environmental contamination. Proceedings of a symposium on nuclear techniques in comparative studies of food and environmental contamination, held in Otaniemi, Finland, 7-31 August, 1973.

[Conference proceedings]
Food & Agriculture Organization; International Atomic Energy Agency; World Health Organization
623pp. (1974) [many ref. En] Vienna, Austria; International Atomic Energy Agency Price 550sch; £12.00; 140F; DM75; \$27

[Continued from preceding abstr.] Neutron activation analysis trace-element studies of Dover sole liver and marine sediments, by J. J. M. de Goeij, V. P. Guinn, D. R. Young & A. J. Mearns (pp. 189-200, 9 ref.); Trace element concentrations in some Italian underground waters, determined by neutron activation analysis, by G. F. Clemente, G. G. Mastinu & G. P. Santaroni (pp. 213-227, 11 ref.); Stable lead and ^{210}Pb in the food chain lichen-reindeer-man, by R. B. R. Persson (pp. 231-247, 42 ref.); Availability of ^{90}Sr to various Egyptian plants through environmental contamination, by H. M. Roushdy, M. A. Abdel-Salam, M. K. Moloukhia & S. Abdel-Latif (pp. 259-269, 35 ref.); Long-lived radionuclides in food: ^{90}Sr and ^{137}Cs in the Israel diet, by Y. Feige, A. Eisenberg, Y. Proulov and J. Klopfer (pp. 271-279, 6 ref.); [Use of neutron activation and atomic absorption to study certain heavy metals in the fodder-dairy products chain], by C. Bruant, J.-P. Bruant, M. Neuburger, A. Fourcy, L. Vassal, C. Disant & R. Bittel (pp. 293-307, 8 ref., Fr, en); The influence of resin coating on the tin levels in canned food, by J. J. M. de Goeij & J. J. Kroon (pp. 309-314, 11 ref.); Kinetics of chromium absorption by intact rice plants, by G. R. M. Verfaillie (pp. 315-331, 1 ref.); [continued in following abstr.] CRI

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Comparative studies of food and environmental contamination. Proceedings of a symposium on nuclear techniques in comparative studies of food and environmental contamination, held in Otaniemi, Finland, 27-31 August, 1973.

[Conference proceedings]

Food & Agriculture Organization; International Atomic Energy Agency; World Health Organization

623pp. (1974) [many ref. En] Vienna, Austria; International Atomic Agency Price 550sch; £12.00; 140F; DM75; \$27

[Continued from preceding abstr.] Selenium content of some foodstuffs and environmental samples in an area of Italy rich in minerals, by M. A. Bombace, L. C. Rossi & G. F. Clemente (pp. 341-349, 21 ref.); Metabolism of labelled thiram in barley and soil, by P. V. Sane, S. R. Rao, R. Kumarasamy, N. B. K. Murthy & K. Raghu (pp. 351-361, 16 ref.); Metabolism and accumulation of pesticides in rice plants, by K. Ishizuka, H. Hosaka, I. Takase, K. E. Tan & H. Hirata (pp. 363-372); Bromine content of vegetables and its accumulation after soil fumigation with methyl bromide, using neutron activation analysis, by H. Staerk & A. Suess (pp. 417-428, 10 ref.); Realistic detection limits for neutron activation analysis of biological samples, by N. M. Spyrou, M. E. Fricker, R. Robertson & W. B. Gilboy (pp. 471-487, 8 ref.); Standard reference materials for the determination of trace elements in environmental samples, by P. D. LaFleur (pp. 489-496, 2 ref.); Quantitative analysis of fissile elements in water samples with a spark replica counter, by G. G. Mastinu (pp. 497-502, 20 ref.); Micropollutant interaction with yeast, by R. Kokke & T. Kujala (pp. 551-558, 8 ref.); and A distribution model for radioactive and other persistent pollutants in the environment and in the food chain, by G.-Z. Labellarte (pp. 585-594, 6 ref.). CRI

91

Radionuclides in foods. [Book]

United States of America, National Research Council, Food Protection Committee

v+97pp. ISBN 0-309-02113-8 (1973) [many ref. En] Washington, DC, USA; National Academy of Sciences Price \$3.75

This report, which is a revision of an earlier version published in 1962, is designed for advanced students in food technology, environmental and biomedical scientists and radiobiologists. The following reviews are included: Natural radionuclides in food and water (pp. 8-21, 20 ref.); Man-made radionuclides in food and water (pp. 22-56, 82 ref.); Quantitation of gamma-emitting radionuclides in food (pp. 57-61, 2 ref.); Sources of radionuclide contamination and fusion reactors (pp. 62-77, 23 ref.); Control measures (pp. 78-94, 8 ref.); and Food irradiation (pp. 95-97, 3 ref.). VJG

PHYSICAL PROPERTIES

92

[Thermophysical constants of foods and semi-manufactured products.] Wärmephysikalische Konstanten von Lebensmitteln und Halbfabrikaten. [Book]

Tschubik[Chubik], I. A.; Maslow[Maslov], A. M. 176pp. (1973) [96 ref. De] Leipzig, German Democratic Republic; VEB Fachbuchverlag Price M18.80

This is a German-language translation of an original Russian publication, in which data from the literature up to 1968 on thermo-physical relationships for a wide range of foods are given in tabular or graph form. HBr

MICROBIOLOGY

93

Handbook of microbiology. Vol. II. Microbial composition. [Book]

Laskin, A. I.; Lechevalier, H. A. (Editors) 1060pp. ISBN 0 87819 582 3 (1973) [many ref. En] Cleveland, Ohio, USA; CRC Press Price \$43.95 [Esso Res. and Eng. Co., Linden, New Jersey, USA]

In this book an effort has been made to put in the hands of microbiologists basic information on the constituents of microbial cells. The book contains the following sections, each containing numerous sub-sections contributed by different authors: Amino acids and proteins (pp. 1-86); Carbohydrates (pp. 87-239); Lipids (pp. 241-327); Nucleic acids (pp. 329-802); Minerals (pp. 803-830); and Miscellaneous information (pp. 831-1037). This last section discusses cell breakage and centrifugation and gives basic physical, chemical and mathematical information, e.g. atomic weights, dissociation and ionization constants. JA

94

[3rd Symposium, Industrial Microbiology, Berlin, 1973.] 3. Symposium, Technische Mikrobiologie, Berlin, 1973. [Conference proceedings] Dellweg, H. (Germany, Federal Republic of, Institut für Gärungsgewerbe & Biotechnologie) (Editor)

xxiii+543pp. (1973) [many ref. De, En] Berlin (West); Inst. für Gärungsgewerbe und Biotechnologie

Papers read at the Symposium are reproduced, and include: Continuous fermentation (of *Candida lipolytica*) for microbial protein production, by U. Faust & R. Knecht (pp. 169-174, De, 3 ref.); Degradation characteristics of canning factory effluent with a high organic load, by K.-H. Schmidt & W. Paarmann (pp. 233-238, De, 5 ref.); Suitability of various sugar beet syrups for

production of baker's yeast, by H. Klaushofer (pp. 269-280, De, 11 ref.); Microbial cell production from a dicarbonic acid mixture (for protein production), by R. Hoffsten & F. Wagner (pp. 287-292, De, 2 ref.); α -Glucosidase activity and the leavening power of baker's yeast, by H. Suomalainen & E. Oura (pp. 361-366, De, 2 ref.); Microbial spoilage of chicken, by A. Kleeberger (pp. 437-442, De, 3 ref.); Occurrence and effect of microorganisms in fish, by F. Senser (pp. 443-447, De, 2 ref.); Fermentation of whey as a means of producing by-products (e.g. yeast and yeast extracts for foods), by L. Hepner (pp. 449-453, De); *Brettanomyces* yeasts in soft drinks, by F. E. M. J. Sand (pp. 467-468, De, 3 ref.); New biochemical properties for helping the classification of lactobacilli, by O. Kandler & K. Stetter (pp. 501-506, De, 5 ref.); and Effect of properties analysed on the grouping of *Pseudomonads* from milk, by R. Braatz (pp. 513-518, De, 5 ref.). HBr

95

Recommended routine monitoring procedures for the microbiological examination of (infant) foods and drinking water. [Booklet]

Mossel, D. A. A.; Harrewijn, G. A.; Elzebroek, B. J. M.
24pp. (1973) [47 ref. En] Geneva, Switzerland; UNICEF

Recommended procedures for use in bacteriological monitoring of dried infant formulae, and, to a certain extent, monitoring of drinking water used for their reconstitution, are assembled in this manual, which is not regarded as definitive. It is suggested that dried formulae should be routinely tested for viable aerobic count, *Enterobacteriaceae*, *Staphylococcus aureus* and moulds; if results are unsatisfactory, further tests should be made for viable aerobic spores, *Escherichia coli*, Lancefield group D streptococci and *Clostridium perfringens*; if these are unsatisfactory, tests for *Salmonella*, *Arizona* and *Edwardsiella* spp., *Pseudomonas aeruginosa* and *Vibrio parahaemolyticus* should be carried out at reference laboratories. Drinking water should be monitored routinely for *E. coli*, group D streptococci and psychrotrophic Gram-negative rods, and by reference laboratories, if necessary, for *Salmonella* and *Shigella* spp., *Pseudomonas aeruginosa* and *Vibrio comma*. CDP

96

Methods in microbiology. Volume 4. [Book]

Booth, C. (Editor)
795pp. SBN 12-521504-5 (1971) [many ref. En]
[London, UK; Academic Press Inc. (London) Ltd.
Price £11 [Commonwealth Mycological Inst., Kew,
Surrey, UK]

This part of a 7-volume series (general editors, Norris & Ribbons) is devoted to mycological methods. General methods and media, examination techniques and preservation are covered and

specific chapters deal with fungi from certain natural groups (including lichens) and the specialized techniques used in their collection, isolation and cultivation. [See also FSTA (1973) 5 5A249.] CDP

97

Fourth Long Ashton Symposium. Lactic acid bacteria in beverages and food. Proceedings of a Symposium held at Long Ashton Research Station, University of Bristol, 19-21 Sept., 1973.

[Conference proceedings]

Carr, J. G.; Cutting, C. V.; Whiting, G. C. (United Kingdom, Long Ashton Research Station) (Editors)
xv+415pp. ISBN 0-12-160650-3 (1975) [many ref. En] London, UK; Academic Press Inc. Price £10.80

Papers presented at the 4th Long Ashton Symposium include: The lactic acid bacteria - a broad view, by M. Ingram (pp. 1-13, 57 ref.); The metabolism of organic acids by lactic acid bacteria, by F. Radler (pp. 17-27, 24 ref.); Some biochemical and flavour aspects of lactic acid bacteria in ciders and other alcoholic beverages, by G. C. Whiting (pp. 69-85, 69 ref.); Chemical structure of a growth factor and its physiological significance for malolactic bacteria, by T. Amachi (pp. 103-118, 14 ref.); Beer spoilage lactic acid bacteria, by C. Rainbow (pp. 149-158, 11 ref.); Some properties of gas-forming lactic acid bacteria and their significance in classification, by E. I. Garvie (pp. 339-349, 16 ref.); A review of biochemical techniques in the classification of lactobacilli, by R. A. D. Williams (pp. 351-367, 61 ref.); and Lactics of the world unite, by J. G. Carr (pp. 369-380, 23 ref.). A further 18 papers are abstracted separately and indexed additionally under United Kingdom, Long Ashton Research Station [Symposium]. VJG

98

Microbes and biological productivity. Twenty-first symposium of the Society for General Microbiology held at University College, London, April, 1971.

[Conference proceedings]

Hughes, D. E.; Rose, A. H. (United Kingdom, Society for General Microbiology) (Editors)
x+378pp. ISBN 0-521-08112-2 (1971) [many ref. En] Cambridge, UK; University Press

Papers presented at the symposium include: Hydrocarbons as a source of single-cell protein, J. F. Wilkinson (pp. 15-46, 64 ref.); Algae and lithotrophic bacteria as food sources, by W. A. Vincent (pp. 47-76, 53 ref.); Microbial production of food additives, by A. L. Demain (pp. 77-101, 77 ref.); and Ecological essentials of antimicrobial food preservation, by D. A. A. Mossel (pp. 177-195, 84 ref.). VJG

YEASTS

99

A new key to the yeasts. [Book]

Barnett, J. A.; Pankhurst, R. J.

ix + 273pp. ISBN 0 7204 4143 9 & ISBN 0 444

10580 8 (1974) [103 ref. En] Amsterdam,

Netherlands; North Holland Publishing Co. New

York, USA; American Elsevier Publishing Co. Inc.

[School of Biol. Sci., Univ. of East Anglia,
Norwich, UK]

This book contains a computer-made key for yeast identification to be used with 'The yeasts: a taxonomic study', edited by J. Lodder (2nd edition published in 1970 by North Holland Publishing Co. & American Elsevier Publishing Co. Inc.). The key is based solely on results of physiological tests, largely those of growth and fermentation. In addition to listing 341 species detailed in 'The yeasts', this key includes a further 93 species. Brief descriptions and full references are given for each of these additional species. A table lists the responses of all 434 species (arranged alphabetically) to 60 physiological tests. JA

100

[Conditions of culturing *Torulopsis candida* FK yeast on whey.] (In 'Ispol'zovanie mikroorganizmov i ikh metabolitov v narodnom khozyaistve'.) [Book]

Zalashko, L. S.; Tsvigun, V. I.; Oleshko, V. S.

pp. 25-30 (1974) [4 ref. Ru] Minsk, USSR;

Izdatel'stvo 'Nauka i Tekhnika' [Otdel Mikrobiol.

AN Belorusskoi SSR, Minsk, USSR]

T. candida FK was grown in conical fermenters with nozzles on a tvorog whey medium [see FSTA (1971) 3 8P1414] and effects of culturing conditions on biomass yield were studied. Best yields were obtained at an approx. aeration rate of O_2 of $1.44 \text{ g } O_2 \text{ l}^{-1} \text{ h}^{-1}$ and at $20-22^\circ\text{C}$, using an inoculum level equivalent to 15-25% of the initial lactose content of the medium. SKK

101

[Growth and accumulation of yeast biomass in different types of whey.] (In 'Ispol'zovanie mikroorganizmov i ikh metabolitov v narodnom khozyaistve'.) [Book]

Zalashko, L. S.; Oleshko, V. S.; Tsvigun, V. I.

pp. 31-35 (1974) [3 ref. Ru] Minsk, USSR;

Izdatel'stvo 'Nauka i Tekhnika' [Otdel Mikrobiol.

AN Belorusskoi SSR, Minsk, USSR]

Candida humicola 6, *C. curvata* 68 and *Torulopsis candida* FK were flask-cultured using a shaker in raw or sterilized (0.75 atm gauge pressure for 30 min) whey. Yields in raw whey were much lower because of competitive growth of low-yielding wild yeasts; on both types of whey, yields decreased in the order of spp. listed above. Further tests with *T. candida* FK were carried out in conical

fermenters with nozzles at $26-28^\circ\text{C}$ and an aeration rate of $0.8 \text{ g } O_2 \text{ l}^{-1} \text{ h}^{-1}$, using rennet and tvorog wheys. Wheys had been heat-treated at $95-98^\circ\text{C}$ for 1 h or sterilized as described above, with or without previous heat-treatment at 120°C for 10 min and removal of precipitated protein by filtration; heat precipitation of proteins was also carried out on rennet whey at pH lowered by addition of HCl or lactic acid, and on tvorog whey at pH raised by addition of NH_3 or $Ca(OH)_2$. Dried yeast yields were higher with sterilized than with heat-treated ($95-98^\circ\text{C}$ for 1 h) wheys, and were best after previous heat-treatment without pH change; for rennet whey and with pH raised by NH_3 for tvorog whey. SKK

102

The yeasts. A taxonomic study. [Book]

Lodder, J. (Editor)

Ed. 2 xvi + 1385pp. ISBN 0-7204-4054-8 (1970)

[many ref. En] Amsterdam, Netherlands: North-Holland Publishing Co. Price f235

See FSTA (1975) 7 1B2.

ENZYMES

103

Food related enzymes. [Conference proceedings]

Whitaker, J. R. (United States of America

American Chemical Society) (Editor)

Advances in Chemistry Series 136, ix + 365pp.

ISBN 0-8412-0209-5 (1974) [many ref. En]

This symposium on food related enzymes, sponsored by the Division of Agricultural and Food Chemistry at the 166th Meeting of the American Chemical Society, in Chicago, Illinois, on Aug. 28-29, 1973, contains the following reviews: Analytical applications of enzymes, by J. R. Whitaker (pp. 31-78, 187 ref.); Cellulases, by G. H. Emert, E. K. Gum, Jr., J. A. Lang, T. H. Liu & R. D. Brown, Jr. (pp. 79-100, 68 ref.); Lipolytic enzymes, by H. Brockerhoff (pp. 131-145, 26 ref.); Serine proteases, by D. R. Whitaker (pp. 186-201, 37 ref.); Metal-containing exopeptidase, by J. F. Riordan (pp. 220-240, 67 ref.); and Structure and mechanism of copper oxidases, by J. E. Coleman (pp. 267-304, 118 ref.). A further 7 reviews are abstracted separately and are in the author index under **United States of America**, American Chemical Society. The book is well indexed. AL

HYGIENE & SANITATION

104

Fumigation with methyl bromide under gas-proof sheets. [Book]

Heseltine, H. K.; Thompson, R. H. (United Kingdom, Ministry of Agriculture, Fisheries & Food)

vii + 58pp. (1973) [35 ref. En] London, UK; Min. of Agric., Fisheries & Food. Price £0.40 [Pest Infestation Control Lab., Slough, Bucks., UK]

This publication discusses methods of fumigating stacks of commodities under sheets, as distinct from whole buildings. Main sections include: Methyl bromide as a fumigant; Fumigation under gas-proof sheets; and Methods for determining the effectiveness of fumigation. Individual sections cover: the effect on fumigated foodstuffs such as wheat, maize, barley, peas, beans and groundnuts; hazards associated with its use; types of stack suitable for fumigation; equipment and dosage required for various commodities; application of fumigant; procedure for airing; protection against re-infestation; and examination of a stack after fumigation for effectiveness. The booklet is well illustrated and an appendix with conversion factors is provided. CRI

105

Textbook of meat hygiene. [Book]

Thornton, H.; Gracey, J. F.

6th Edition viii + 599pp. ISBN 0-7020-0466-9 (1974) [En] London, UK; Bailliere Tindall Price £8.50 [Dept. of Vet. Services., Min. of Agric., Rhodesia]

This revised and expanded sixth edition of this textbook is divided into the following chapters: The food animals (pp. 1-19); Abattoirs (pp. 20-57); Post-mortem inspection (pp. 58-71); Comparative anatomy of the tissues and organs and their food uses (pp. 72-119); Pathology of the food animals (pp. 120-155); Affections of specific parts (pp. 156-200); Bacterial and viral diseases (pp. 201-296); Parasitic diseases (pp. 297-380); The inspection of rabbits and hares (pp. 381-384); The inspection of poultry (pp. 385-418); Meat hygiene practice (pp. 419-510); The preservation of meat (pp. 511-558); and Treatment and disposal of by-products and fats (pp. 559-572). An appendix 'Hygiene-why bother' gives the text of a booklet prepared for the guidance of staff at the City of Belfast Meat Plant, Northern Ireland. AJDW

106

Improvement of food quality by irradiation.

[Conference proceedings]

Food & Agriculture Organization; International Atomic Energy Agency
188pp. (1974) [many ref. En] Vienna, Austria; International Atomic Energy Agency Price £3.80

This book contains proceedings and a summary with recommendations made at a meeting on ionizing radiation preservation of foods, organized by the joint FAO/IAEA Division of Atomic Energy in Food and Agriculture, held in Vienna, Austria on 18-22 June, 1973. Papers included are: Irradiation of food and food constituents - chemical and hygienic consequences, by J. Schubert (pp. 1-38, 37 ref.); Some theoretical considerations on the chemical mechanism of the radiation-induced

depolymerization of high molecular carbohydrates, by J. Scherz (pp. 39-50, 16 ref.); Influence of gamma radiation on the wholesomeness and technological properties of maize starch, by L. Saint-Lebe, G. Berger & A. Mucchielli (pp. 51-60, Fr, 15 ref.); Physico-chemical changes in irradiated (γ ^{60}Co inulin, by S. Bachman & H. Zegota (pp. 61-75, 33 ref.); Effects of ionizing radiation on gelation in the solid state, by S. Bachman, S. Galant, Z. Gasyna, S. Witkowski & H. Zegota (pp. 77-94, 25 ref.). [Continued in following abstr.] GL

107

Improvement of food quality by irradiation.

[Conference proceedings]

Food & Agriculture Organization; International Atomic Energy Agency

188pp. (1974) [En] Vienna, Austria; International Atomic Energy Agency Price £3.80

[Continued from preceding abstr.] The antioxidative effects of gamma-irradiated amino-sugar reaction products, by M. Fujimaki, M. Morita & H. Kato (pp. 95-99); Aspects of the effect of ionizing radiation on enzymes, by T. Sanner, G. Kovacs-Proszk & S. Witkowski (pp. 101-115, 60 ref.); Changes in cell permeability due to irradiation - effect of ^{60}Co gamma rays on the phospholipase D enzyme (abstr. only), by W. S. Sherif (pp. 117); Immobilization of enzymes by the radiopolymerization of acrylamide, by K. Kawashima & K. Umeda (pp. 119-128); Compositional and quality changes in some irradiated foods, by A. Sreenivasan (pp. 129-155, 51 ref.); and Effects of irradiation on the technological and hygienic qualities of several food products, by I. Kiss, J. Farkas, S. Ferenczi, B. Kalman & J. Beczner (pp. 157-177, 17 ref.). GL

108

Practical food inspection. [Book]

Martin, C. R. A.

Ed. 8, vii + 785pp. SBN 7186-0384-2 (1973) [En] London, UK; H. K. Lewis & Co. Ltd. Price £8.00

This present edition [see FSTA (1970) 2 2C34 for 7th edition] brings up to date relevant legislation, the principles and practice of control, and knowledge acquired from recent research. The book contains 4 parts: Meat inspection (pp. 1-325); Fish, poultry and other foods (pp. 327-607); Food treatment and epidemiology (pp. 609-685); and Legal procedure (pp. 687-764). Individual chapters are: Physiology and comparative anatomy (pp. 3-35); Age indications, sexual differences, and ante-mortem inspection (pp. 36-53); Slaughterhouses and slaughtering: Dressing of animals and preparation for sale (pp. 54-83); A system of meat inspection (pp. 84-100); Physiological abnormalities, etc., and malformations (pp. 101-112); Pathological abnormalities (pp. 113-156); Infectious diseases (pp. 157-232); Parasites (pp. 233-297); Preservation of meat (pp. 298-325); Fish (pp. 329-385); Poultry and game (pp. 386-416);

Fruit, vegetables, and cereals (pp. 417-453); canned foods (pp. 454-473); Milk and milk products (pp. 474-550); Miscellaneous foods (pp. 551-607); Food additives and contaminants (pp. 611-642) Food poisoning (pp. 643-668); and Food hygiene (pp. 669-685). JA

109

Food poisoning and food hygiene. [Book]

Hobbs, B. C.

Ed. 3, ix+308pp. ISBN 0-7131-4216-2 (1974)

[En] London, UK; Edward Arnold (Publishers) Ltd. Price £4.50 [Food Hygiene Lab., Central Public Health Lab., London, UK]

The aim of this book is to bring essential facts about food poisoning and its prevention to everyone engaged in food processing. This revised 3rd edition [see FSTA (1969) 1 1C19 for the 2nd edition] contains 2 parts: Food poisoning and food-borne infection (pp. 1-120) and Food hygiene in the prevention of food poisoning (pp. 121-290). Individual chapters are: Introduction (pp. 3-11); Elementary bacteriology (pp. 12-21); Bacterial causes of food poisoning (pp. 22-30); Reservoirs of infection and ways of spread (pp. 31-44); The vehicle of infection (pp. 45-67); Examples of outbreaks of food poisoning (pp. 68-103); Ecology of micro-organisms in food (pp. 104-110); Food-borne infection (pp. 111-120); Introduction (pp. 123-126); Personal hygiene of the food handler (pp. 127-135); Storage and preparation and retail shops (pp. 136-162); Cleaning methods (pp. 163-182); Sterilization and disinfection, by I. M. Maurer (pp. 183-191); Kitchen design and equipment, by L. Kluth (pp. 192-215); Control of infestation, by L. Kluth (pp. 216-226); Legislation, by L. Kluth (pp. 227-238); and Education (pp. 239-257). Appendix A (pp. 258-287) gives suggested outlines for lectures to various groups of people, and Appendix B (pp. 288-290), entitled 'Prevention of food poisoning abroad', is intended to help travellers with their choice of food. JA

110

Toxic constituents of animal foodstuffs. [Book]

Linener, I. E. (Editor)

x+222pp. ISBN 0-12-449940-6 (1974) [many ref.]

[En] London, UK; Academic Press Price £6.80 [Dept. of Biochem., Coll. of Biol. Sci., Univ. of Minnesota, St. Paul, Minnesota, USA]

This book, which is a monograph in the Food Science & Technology Series, treats animal foodstuffs as a separate topic in which both toxic substances which occur naturally as well as those which are deliberately or inadvertently introduced by man are considered. Chapters included are: Meat and dairy products (including meat, liver, milk, cheese and eggs), by N. Sapeika (pp. 1-38, many ref.); Avian eggs (including egg white, avidin, lysozyme, ovomucoid and ovomucoprotein), by D. T. Osuga & R. E. Feeney (pp. 39-71, many ref.); Fish

eggs (including tetrodotoxin, lipoprotein toxins, toxins from eggs of cyprinid fishes, pikes and gar), by F. A. Fuhrman (pp. 73-110, 134 ref.); Shellfish, fish and algae, by E. J. Schantz (pp. 111-130, 55 ref.); and Nitrosamines, by N. P. Sen (pp. 131-194, many ref.). VJG

111

[Veterinary food inspection and principles of the technology of processing products of animal origin.]

Veterinarno-sanitarnaya ekspertiza s osnovami tekhnologii pererabotki produktov zhivotnovodstva. [Book]

Goreglyad, Kh. S. (Editor)

615pp. (1974) [many ref. Ru] Leningrad, USSR; Izdatel'stvo 'Kolos' Price 1.73r

This profusely illustrated textbook, intended for students of veterinary colleges and faculties, consists of the following main chapters: The raw materials of the meat industry (pp. 11-20); Transport of animals and veterinary care on the way (pp. 21-31); Animal processing establishments and sanitary principles of their organization (pp. 32-43); Reception, pre-slaughter maintenance and veterinary inspection of animals (pp. 44-53); Primary processing of animals (pp. 54-80); Morphology, chemistry and merchandizing of meat (pp. 81-102); Principles and methods of veterinary inspection of carcasses and organs (pp. 103-128); Veterinary inspection of meat and other slaughter products in the presence of infectious diseases (pp. 129-192); Veterinary inspection of meat and other slaughter products in the presence of parasitic diseases (pp. 193-216); Veterinary inspection of carcasses and organs in the presence of non-infective diseases (pp. 217-246); Veterinary inspection of meat in poisoning of animals by radioactive and poisonous substances (pp. 247-260); Veterinary inspection of externally altered meat (pp. 261-274); Food poisoning (pp. 275-290); Veterinary inspection and hygiene in preservation of meat and meat products (pp. 291-341); [continued in following abstr.] SKK

112

[Veterinary food inspection and principles of the technology of processing products of animal origin.]

Veterinarno-sanitarnaya ekspertiza s osnovami tekhnologii pererabotki produktov zhivotnovodstva. [Book]

Goreglyad, Kh. S. (Editor)

615pp. (1974) [many ref. Ru] Leningrad, USSR; Izdatel'stvo 'Kolos' Price 1.73r

[Continued from preceding abstr.] Manufacture of sausages and smoked products (pp. 342-261); Processing of crude animal fat, food offal and endocrine glands (pp. 362-388); Processing of blood and intestines (pp. 389-411); Processing of raw hides and skins (pp. 412-429); Veterinary inspection and technological bases of milk and milk products and egg inspection (pp. 430-504); Veterinary inspection and technological bases of fish processing (pp. 505-533); Veterinary inspection

and technological bases of preparation of marine mammals and invertebrates (pp. 534-547); Veterinary inspection of vegetable foods (pp. 548-574); Veterinary inspection of honey (pp. 575-588); and Meat, milk and food control stations (pp. 589-595). SKK

113

Third International Congress of Parasitology. A conference of the World Federation of Parasitologists. Proceedings (Vol. I, II, III). Congress Centre, Exhibition Grounds, Munich, Aug. 25-31, 1974. [Conference proceedings] Germany, Federal Republic of, Deutsche Gesellschaft für Parasitologie; World Federation of Parasitologists 1732pp. (1974) [En, De, Es, Fr] Vienna, Austria; Facta Publication

Abstracts are given of papers presented at this symposium. Papers of food relevance include: Contributions to the improvement of the diagnosis in cattle cysticercosis, by I. Cironeau & J. Leonte (pp. 579-580, En); Epidemiology and epizootiology of *Taenia saginata* cysticercosis and taeniasis in Poznan district, by Z. Pawlowski, M. G. Schultz, B. Kozakiewicz & M. Lisowska (p. 580, En); ELISA - enzyme-linked immuno-sorbent assay - in serological diagnosis of *Trichinella spiralis* infection, by I. Ljungström, E. Engvall & E. J. Ruitenberg (pp. 1204-1205, En); and Effects of parasites on quantity and quality of fish catches, by Yu. V. Kurochkin (p. 1717, En). A further 21 papers of food relevance are abstracted individually and indexed under **Germany, Federal Republic of, Deutsche Gesellschaft für Parasitologie [Symposium].** AJDW

INDUSTRIES, STATISTICS, MANAGEMENT, ECONOMICS

114

[The development of German dairying.] Die Deutsche Milchwirtschaft im Wandel der Zeit. [Book] Germany, Federal Republic of, Verband der Ingenieure für Milch- und Molkereiwirtschaft e. V. 548pp. ISBN 3-7862-0062-6 (1974) [De] Hildesheim, Federal Republic of Germany; Verlag Th. Mann

This profusely illustrated book consists mainly of a history of the technical and economic development of the German dairy industry over the last 100 yr (by A. Rabich, pp. 11-208, 543 ref.). Every aspect is covered, including environmental protection, plant design and construction, dairy product manufacture, legislation, market regulation, dairy publications etc. The final sections of the book contain brief accounts of the development of individual dairy enterprises (pp. 209-362) and firms manufacturing dairy equipment etc. (pp. 363-548). ADL

115

Forecasts of the dairy and beef situations in 1975 and 1978. [Book] Organization for Economic Cooperation & Development 156pp. ISBN 92-64-11219-7 (1974) [En] Paris, France Price £1.60

This report on predicted trends in the production, consumption and trade in beef and dairy products in the OECD in 1975 and 1978 includes a general review (covering numbers of beef and dairy cattle and production of beef, veal and the major dairy products), and more detailed predictions for each OECD member country. The situation in non-OECD countries is also discussed. AJDW

116

[World trade in dairy products. II. Imports of dairy products in 23 countries during 1971, 1972 and 1973.] De wereldhandel in zuivelprodukten. 2. De import van zuivelprodukten in een 23 tal landen, gedurende de jaren 1971, 1972 & 1973. [Book] Netherlands, Produktschap voor Zuivel 54pp. (1974) [Nl] Rijswijk, Netherlands

The first 23 tables in this publication give data on imports of butter, cheese, condensed + evaporated milk and dried milk into each of the following countries; Netherlands, Belgium, France, Italy, Federal Republic of Germany, UK, Denmark, Irish Republic, Spain, Switzerland, India, Thailand, Japan, Hongkong, Singapore, Philippines, USA, Canada, Mexico, Nigeria, Algeria, Tunisia, and Morocco. The imports are classified by main exporting countries. The final table summarizes the data for all 23 importing countries. [See FSTA (1972) 4 3D162 for 1970 export figures.] ADL

117

[Organization of planning and control in the Soviet canning industry.] Organizatsiya upravleniya konservnym proizvodstvom. [Book] Alekseev, V. V.; Orlov, A. V.; Petrov, Yu. M. 216pp. (1973) [132 ref. Ru] Moscow, USSR; Pishchevaya Promyshlennost' Price 0.74r

118

[Agricultural markets in 1973. Federal German, EEC and world markets. Milk and milk products.] Die Agrarmärkte. BR Deutschland, EWG und Weltmarkt. Milch und Milcherzeugnisse. [Book] Germany, Federal Republic of, Zentrale Markt- & Preisberichtsstelle 58pp. (1974) [De] Bonn-Bad Godesberg, Federal Republic of Germany

119

Household food consumption and expenditure: 1973. Annual report. [Book]

United Kingdom, Ministry of Agriculture, Fisheries & Food, National Food Survey Committee *Report, National Food Survey Committee, Ministry of Agriculture, Fisheries and Food* xii+236pp. ISBN 0-11-241049-9 (1975) [En] London, UK; H.M. Stationery Office Price £2.33 [Tolcarne Drive, Pinner, Middlesex HA5 2DT, UK]

Part I of this report (pp. 3-6) summarizes trends in food consumption in the UK in 1973 with reference to personal income, expenditure and retail prices both as national averages and in terms of geographical, income and household composition groups; the nutritional value of household food was also assessed. Of the weekly £2.74/person spent on food in 1973, 29.75p was spent on milk and cream, 7.93p on cheese, and 6.92p on butter; average weekly consumption of liquid milk was 4.75 pints/person of which 0.08 pints were supplied by welfare and school milk allowances. Parts II and III contain statistical tables of consumption and expenditure by the groups mentioned above and appendices covering methodology of the survey, demand analyses and estimated of demand parameters, and estimates of national supplies of food moving into consumption. A glossary and index are also given.

MC

120

The market for frozen food... 1974. Retail-grocery and foodservice market consumption. [Book]

United States of America, National Frozen Food Association Inc. 35pp. (1974) [En] Hershey, Pennsylvania, USA

This marketing report outlines the retail and foodservice aspect of the frozen food industry in the USA. Detailed comparative data in the form of graphs, tables and histograms are presented. The foodservice industry has been adversely affected by food costs during 1973 and 1974. Inflation has resulted in greater increase in the cost of staple foods than of luxury products (meat and processed/packaged/prepared foods). The value of consumer purchases of frozen foods in 1974 was \$7055 million compared with \$6223 million in 1973. This constitutes a 13.37% increase in retail grocery transactions for 1974; real growth was 6.28%, and 7.09% was due to inflation. In 1974, frozen food constituted 7.07% of the value of all foods purchased. Total sales increases of frozen fruit, vegetables, meat, poultry and sea-food were greater than the total sales increases of frozen foods. Sales of prepared foods and frozen bakery products increased by 12.63 and 13.45%, respectively. The foodservice expenditure for frozen food increased by 14.4% to \$255 300 000; real increase was over 7% after adjusting for inflation. In 1970 and 1974, frozen food represented 11.53 and 12.02%, respectively, of the value of all food purchased by the food industry.

GL

121

Trade yearbook: volume 27: 1973. [Book]

Food & Agriculture Organization x1+536pp. (1974) [En, Fr, Es] Rome, Italy

Tabulated export and import statistics for food and agricultural products for numerous countries are given. Total trade figures and trade figures for citrus, other fruit, coconuts, dates, raisins and vegetables are given for the period 1962-1973. Trade figures for animals, meat, meat products, cereals, cereal products, hops, sugar, honey, beverages, spices, oilseeds, oilseed products, margarine, wines, beer, nuts, animal fats and vegetable oils are given for the period 1968-1973.

GL

PROCESSES & EQUIPMENT

122

Food processing waste management. [Book]

United States of America, Cornell University, College of Agriculture & Life Sciences; **United States of America**, Environmental Protection Agency; **United States of America**, National Canners Association 321pp. (1973) [many ref. En] Ithaca, New York, USA; Cornell Univ.

Papers presented at the conference for Food Processing Waste Management held at Syracuse, New York on March 26-28, 1973, were as follows: Government policies relating to water pollution control, by C. G. Wills (pp. 3-7); Biological treatment of winery stillage, by E. D. Schroeder, D. J. Reardon, R. Matteoli & W. H. Harvey (pp. 8-20, 17 ref.); Recycling spent cucumber pickling brines, by P. E. Henne & J. R. Geisman (pp. 21-33, 38 ref.); Use of yeast in the treatment of sauerkraut waste, by Y. D. Hang, D. F. Splittstoesser & R. L. Landschoot (pp. 34-38, 5 ref.); Reduced-water cleaning of tomatoes, by J. M. Krochta, G. S. Williams, R. P. Graham & D. F. Farkas (pp. 39-47, 14 ref.); Waste reduction in table beet processing, by C. Y. Lee, D. L. Downing & Y. D. Hang (pp. 48-50, 3 ref.); New methods under investigation for the utilization of fish solubles, a fishery by product, as a means of pollution abatement, by J. H. Green, S. L. Paskell, D. Goldmintz & L. C. Schisler (pp. 51-68, 22 ref.); Exchange properties of a soil used for the disposal of alkali cannery wastes, by L. R. Webber, T. G. Stevens & D. A. Tel (pp. 69-73, 3 ref.).

GL

123

Food processing waste management. [Book]

United States of America, Cornell University, College of Agriculture & Life Sciences; **United States of America**, Environmental Protection Agency; **United States of America**, National Canners Association 321pp. (1973) [many ref. En] Ithaca, New York,

USA; Cornell Univ.

[Continued from preceding abstr.] Treatment of fish and vegetable processing waste-lagoon effluent by soil bio-filtration, by V. K. Chawla (pp. 74-85, 22 ref.); Water pollution control problems and programme of the Marine Sardine Council, by J. S. Atwell, R. E. Reed & B. A. Patrie (pp. 86-94); Food processing waste water municipal discharge or separate treatment? by A. F. Hassett & R. W. Klippel (pp. 95-102). Protein production from acid whey via fermentation, by S. Bernstein & T. C. Everson (pp. 103-113, 13 ref.); Impact of the individual quick blanch (IQB) process on cannery waste generation, by D. B. Lund (pp. 114-121, 6 ref.); In-plant hot-gas blanching of vegetables, by J. W. Ralls, H. J. Maagdenberg, N. L. Yacoub, M. E. Zinnecker, J. M. Reiman, H. D. Karnath, D. N. Homnick & W. A. Mercer (pp. 122-149); Concentration of brewery spent grain liquor using a submerged combustion evaporator, by J. L. Stein, J. H. Dokos, T. Brodeur & M. R. Radecki (pp. 150-160); A systems approach to effluent abatement by Hawaii's sugar cane industry, by W. Kenda & O. D. Stephen-Hassard (pp. 161-186, 10 ref.).

GL

124

Food processing waste management. [Book] **United States of America**, Cornell University, College of Agriculture & Life Sciences; **United States of America**, Environmental Protection Agency; **United States of America**, National Cannery Association
321pp. (1973) [many ref. En] Ithaca, New York, USA; Cornell Univ.

[Continued from preceding abstr.] Practical application of a biological/physical/chemical treatment system to meat packing waste water, by G. F. Hill & G. W. Dunkelberger, Jr. (pp. 187-190); Small meat-packers wastes treatment systems, by J. L. Witherow (pp. 191-221, 16 ref.); Land disposal of potato starch processing waste water in the Netherlands, by F. A. M. de Haan & P. J. Zwerman (pp. 222-288, 8 ref.); Pretreatment of combined municipal and potato processing wastes, by G. O. Fossum (pp. 229-243, 5 ref.); Activated sludge bio-disc treatment of distillery waste, by J. L. Thomas & D. A. Sanborn (pp. 244-259); Loading characteristics affecting the performance of a laboratory dairy waste water treatment system, by J. V. Chambers & W. J. Harper (pp. 260-273, 21 ref.); Characterization and treatment of fish processing plant effluents in Canada, by M. J. Riddle & K. Shikaze (pp. 274-305, 19 ref.); Biological treatment of egg processing waste water, by N. R. Bulley, P. N. Soper & L. M. Staley (pp. 306-315, 3 ref.); Evaluation of research and development needs for the food processing industry, by F. J. Agardy (pp. 316-321). GL

125

Plastics in contact with food. [Book]

Briston, J. H.; Katan, L. L.

xii + 466pp. ISBN 0 900379 09 x (1974) [many

ref. En] London, UK; Food Trade Press Ltd. Price £12.00

This book, which is primarily aimed at the technologist should be of value to those engaged in the diverse activities necessary for the successful exploitation of plastics for food contact application. It is divided into 3 parts: Materials; Health and quality; and Manufacturing. Chapters included are: The science of plastics (pp. 5-20, 8 ref.); Thermoplastics (pp. 21-48, 9 ref.); Thermosets (pp. 49-61, 2 ref.); Natural polymers and their derivatives (pp. 63-69, 1 ref.); Nonplastics components (pp. 71-96, 10 ref.); Food hazards - background and basic analysis (pp. 99-114, 9 ref.); Toxic hazards (pp. 115-127, 6 ref.); Migration (pp. 129-179, 6 ref.); Food quality - general (pp. 181-202, 11 ref.); Organoleptic effects (pp. 203-238, 9 ref.); Plastics quality (pp. 239-250); Law and regulations (pp. 251-328, 5 ref.); 2-D base materials (pp. 331-348, 4 ref.); Containers from 2-D materials - integral processes (pp. 349-358, 4 ref.); Containers from 2-D base materials - individual containers (pp. 359-366, 4 ref.); Direct made containers (pp. 367-382, 4 ref.); Integrated packaging (pp. 383-393); Composites (pp. 395-402); Closures and other ancillaries (pp. 403-410); and Ornamentation (pp. 411-428). 5 appendices are included: Glossary (pp. 429-431); Diffusion and permeability (pp. 432-438); Plastics and the environment (pp. 439-445); Plastics data and choice criteria (pp. 446-453); and Symbols and units (pp. 454-455). VJG

126

Commercial food patents, U. S., 1973. [Book]

North, H. B. (Editor)

270pp. (1974) [En] Arlington, Virginia, USA; Oliver S. North Price \$30

This book contains >800 abstracts of substantially all the significant US patents issued in 1973 on methods and processes for preparing commercially valuable human food products, human food compositions, apparatus for preparing commercial foods, and apparatus and methods for packaging specific foods. Sections in the book are: Alcoholic beverages (pp. 1-10); Baking and bakery products (pp. 11-34); Breakfast cereals (pp. 35-38); Canning and preserving (pp. 39-48); Cereal grains and flours (pp. 49-58); Coffee and tea (pp. 59-68); Condiments, seasonings, and flavorings (pp. 69-80); Confections (pp. 81-88); Dehydrated foods (pp. 89-96); Fats and oils (pp. 97-100); Fish (pp. 101-106); Freeze-dried and frozen foods (pp. 107-112); Fruits, vegetables, and juices (pp. 113-120); Meat packing and meat products (pp. 121-154); Milk and other dairy products (pp. 155-170); Poultry and egg products (pp. 171-186); Proteins and protein products (pp. 187-196); Shellfish (pp. 197-202); Snacks (pp. 203-206); Sugar (pp. 207-216); and Miscellaneous (pp. 217-226). Assignee, inventor and patent number indexes are included. [See FSTA (1972) 4 3G112 for 1970 patents.] JA

127

Advances in preconcentration and dehydration of foods. [Book]

Spicer, A. (Editor)

x+526pp. ISBN 0-85334-599-6 (1974) [many ref.

En] London, UK; Applied Science Publishers Ltd.

Price \$16.25 [Lord Rank Res. Centre, High

Wycombe, Bucks., UK]

This book contains the papers presented at an international symposium held under the auspices of the International Union of Food Science & Technology and sponsored by Rank Hovis McDougall Ltd. Papers presented at the Symposium held at Croydon, Surrey, UK are arranged under 5 sections: Fundamentals (pp. 7-107); Non-membrane concentration (pp. 111-205); Membrane concentration (pp. 209-314); Spray-drying (pp. 317-406); and Freeze-drying and other novel dehydration techniques (pp. 409-512). Papers presented include: Fundamentals of concentration processes, by H. A. C. Thijssen (pp. 13-44, 23 ref.); Fundamentals of dehydration processes, by M. Karel (pp. 45-94, 70 ref.); Essence recovery on citrus evaporators, by D. T. Shore (pp. 95-99); Rheological aspects of fruit juice evaporation, by G. D. Saravacos (pp. 101-107, 10 ref.); Freeze-concentration, by H. A. C. Thijssen (pp. 115-149, 49 ref.); Non-membrane concentration, by C. H. Mannheim & N. Passy (pp. 151-193, 28 ref.); A new concept for the freeze-concentration process, by W. E. L. Spiess, W. Wolf, W. Buttmi & G. Jung (pp. 195-202, 5 ref.); Sucrose dehydration by the heat of crystallization, by W. M. Nicol (pp. 203-205); Tailored membranes, by A. S. Michaels (pp. 213-250, 32 ref.); Membrane concentration, by R. F. Madsen (pp. 251-301, 12 ref.); Studies of membrane deposits in ultrafiltration, by P. Dejmeek & B. Hallström (pp. 303-308, 5 ref.). [Continued in following abstr.] VJG

128

Advances in preconcentration and dehydration of foods. [Book]

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x+526pp. ISBN 0-85334-599-6 (1974) [many ref.

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Wycombe, Bucks, UK]

[Continued from preceding abstr.] Industrial-scale ultrafiltration and reverse osmosis plants in the food industries, by B. S. Horton (pp. 309-314, 3 ref.); Effects of the latest developments on design and practice of spray drying, by O. G. Kjaergaard (pp. 321-348, 13 ref.); Theoretical modelling of the drying behaviour of droplets in spray dryers, by P. J. A. M. Kerkhof & W. J. A. H. Schoeber (pp. 349-397, 94 ref.); Whisky powders and their applications to foods, by T. Yamada (pp. 399-400); Spray dry coating in fluidized beds, by T. Yamada (pp. 401-402); New directions in freeze-drying, by J. Lorentzen (pp. 413-433, 17 ref.); Novel dehydration techniques, by C. J. King (pp. 435-488,

many ref.); Cyclic-pressure freeze-drying in practice, by J. D. Mellor (pp. 489-497, 9 ref.); The Ecal process - a novel dehydration process, by A. L. Moeller (pp. 499-504); and Microwave heating in vacuum drying, by N. Meisel (pp. 505-509). VJG

129

Agricultural waste management: problems, processes, and approaches. [Book]

Loehr, R. C.

xiii+576pp. ISBN 0-12-455250-1 (1974) [En]

New York, USA; Academic Press [Dept. of Agric.

Engng., Cornell Univ., Ithaca, New York]

Both farm and food processing wastes are covered in this comprehensive monograph. The following chapters are included: Current constraints (pp. 3-15, 12 ref.); Changing practices in agriculture (pp. 16-45, 24 ref.); Environmental impact (pp. 46-99, 97 ref.); Waste characteristics (pp. 100-126, 85 ref. plus detailed tabular appendix pp. 500-555); Biological processes (pp. 129-184, 49 ref.); Ponds and lagoons (pp. 185-235, 71 ref.); Aerobic treatment (pp. 236-315, 90 ref.); Anaerobic treatment (pp. 316-334, 35 ref.); Utilization of agricultural wastes (pp. 335-352, 41 ref.); Land disposal of wastes (pp. 353-390, 41 ref.); Nitrogen control (pp. 391-429, 70 ref.); Physical and chemical treatment (pp. 430-450, 20 ref.); Management approaches (pp. 453-499, 26 ref.). There is an 8pp. subject index. JMD

130

[Theoretical principles and techniques of food products dehydration.] Osnovy teorii i tekhniki sushki pishchevykh produktov. [Book]

Ginzburg, A. S.

528pp. (1973) [many ref. Ru] Moscow, USSR;

Pishchevaya Promyshlennost'. Price 1.46r

This book includes the following chapters: Physico-chemical principles of drying processes (pp. 17-170); Theoretical principles of energy and moisture transfer during the dehydration process (pp. 171-275); Principles of drying techniques (pp. 278-462); and A brief review and principles of engineering calculations and the design of drying equipment (pp. 463-528). STI

131

[Ovens for bakery and confectionery plants.] Pechi khlebopekarnogo i konditerskogo proizvodstva. [Book]

Mikhelev, A. A.; Volodarskii, A. V.

184pp. (1974) [45 ref. Ru] Kiev, USSR;

Izdatel'stvo "Tekhnika". Price 0.91r

The following chapters are included: Design and operation of modern bakery and confectionery ovens (pp. 3-58); Construction of modern bakery and confectionery ovens (pp. 59-116); and use of bakery and confectionery ovens (pp. 116-182). STI

132

[Technological equipment for vegetable oil production plants.] Tekhnologicheskoe oborudovanie proizvodstva rastitel'nykh masel. [Book]

Maslikov, V. A.

438pp. (1974) [84 ref. Ru] Moscow, USSR; Pishchevaya Promyshlennost'. Price 1.19r

A survey of machines and equipment used in the oil processing industry is presented. Chapters included are: Physical properties of seeds and their processing (pp. 8-29); Equipment for treatment of seeds prior to their processing into oils (pp. 30-184); Oil pressing and purification equipment (pp. 185-280); and Oil extraction equipment (pp. 281-429). STI

133

[Equipment of fish processing plants.]

Oborudovanie ryboprerabotkyvayushchikh predpriyatiy. [Book]

Chupakhin, V. M.

320pp. (1974) [Ru] Moscow, USSR; Pishchevaya Promyshlennost'. Price 0.61r

The 2nd edition of this book differs considerably from the 1st edition published in the yr 1968. The description of old and obsolete equipment has been left out and replaced by the description of up to date machines and equipment manufactured in the USSR and abroad. Chapters included are: Equipment for unloading and transportation of fish and fish products (pp. 4-30); washing and grading machines (pp. 31-52); fish cutting machines (pp. 53-94); comminution machines, mixing machines, filtering and pressing machines (pp. 95-116); metering and filling machines (pp. 116-155); sealing machines (pp. 156-179); heating equipment (pp. 180-250); fats and meal processing equipment (pp. 250-278); and continuously working lines (pp. 279-291). [See FSTA (1970) 2 7R268 for 1st edition.] STI

134

Aspects of the introduction of food irradiation in developing countries. [Conference proceedings] Food & Agriculture Organization; International Atomic Energy Agency

113pp. (1973) [En] Vienna, Austria;

International Atomic Energy Agency Price \$6.00; 108sch; £2.50; 25F; DM15

Proceedings of a meeting to consider the application of food irradiation in developing countries (organized by the joint FAO/IAEA Division of the Atomic Energy in Food and Agriculture and held in Bombay, 18-22 Nov., 1972) are published in this book. The papers presented are as follows: The need for action on disinfection of grain and grain products by irradiation, by H. E. Goresline (pp. 1-5, 3 ref.); Experience in irradiating potatoes, by T. Grünwald

(pp. 7-11, 6 ref.); Problems and prospects of radiation disinfection and shelf-life extension of tropical fruits and vegetables, by J. H. Moy (pp. 13-20, 9 ref.); Gamma irradiation of fishery products in Thailand with special reference to their microbiological and entomological aspects, by P. Loaharanu (pp. 21-32, 13 ref.); Studies on some microbiological and chemical aspects of irradiated spices, by S. Bachman & J. Gieszczyńska (pp. 33-41, 15 ref.) [Continued in following abstr.] GL

135

Aspects of the introduction of food irradiation in developing countries. [Conference proceedings] Food & Agriculture Organization; International Atomic Energy Agency

113pp. (1973) [En] Vienna, Austria;

International Atomic Energy Agency Price \$6.00; 108sch; £2.50; 25F; MM15

[Continued from preceding abstr.] Radurization and radication of spices, by J. Farkas (pp. 43-59, 80 ref.); Prospects for radiation preservation of food in Bangladesh, by A. T. M. Faizur Rahman (pp. 61-70, 18 ref.); The prospects of applying food irradiation in Indonesia, by N. Abdullah & M. S. Hoedaya (pp. 71-77, 17 ref.); Food storage problems and food irradiation in Nigeria, by S. A. Adesuyi (pp. 79-82); Public health and legal problems of food irradiation, by A. Matsuyama (pp. 83-86); and Strategies for the introduction of food irradiation in a developing country, by A. Sreenivasan (pp. 87-96, 28 ref.). The book concludes with a summary of the discussions and recommendations (pp. 97-108) and a list of panel participants (pp. 109-113). GL

136

[Equipment in fruit juice manufacturing plants.]

Oborudovanie zavodov fruktovykh vod. [Book]

Rudol'f, V. V.; Denshchikov, M. T.

269pp. (1973) [41 ref. Ru] Moscow, USSR; Pishchevaya Promyshlennost'. Price 1.34r

Equipment, methods of mechanization and automation and the operation of machines and apparatus for fruit juice production are dealt with. Special attention is paid to Soviet and foreign machinery used in Soviet factories. STI

137

[Infra-red techniques and food production. Fundamentals and applications.] Infrarottechnik und Lebensmittelproduktion. Grundlagen und Anwendung. [Book]

Ginsburg[Ginzburg], A. S.

375pp. (1973) [185 ref. De] Leipzig, German Democratic Republic; VEB Fachbuchverlag Price M36

This is a German version of a book which is a standard work in the Communist-bloc countries, and has already been translated into English [see

FSTA (1969) 1 5E381] and Polish [see FSTA (1971) 3 9E451]. This version has been supplemented by a chapter, "The use of IR techniques in food production in the German Democratic Republic" (pp. 336-355). A 5-pp. subject index is included. HBr

138

Food service equipment selection, arrangement, and use. [Book]

Jernigan, A. K.; Ross, L. N.

vii + 122pp. ISBN 0-8138-0550-3 (1974) [34 ref. En] Ames, Iowa, USA St. Univ. Press [Nutr. & Dietary Management Div., St. Dept. of Health, Iowa, USA]

This book provides information on the selection, placement and use of food service equipment for efficient operation. It should be of use to architects, engineers, dietitians, food service directors and consultants, administrators and other responsible for the selection of equipment for restaurants, hospitals, schools and health care facilities. The following chapters are included: Planning goals (pp. 3-8); Construction factors (pp. 9-20); Receiving and storing food (pp. 21-26); Space determination and layout: food preparation area (pp. 27-29); Food preparation equipment (including ovens, steam cooking equipment, mixers and attachments, cooking units, refrigeration units, freezing systems, tables, carts, and accessories, convenience systems) (pp. 30-66); Space determination and layout: food serving area (pp. 67-69); Serving equipment (pp. 70-94); Cleaning and sanitizing equipment (pp. 95-105); Making the system function (pp. 106-115). VJG

139

[Automation of production processes at cereal processing plants.] Avtomatizatsiya proizvodstvennykh protsessov na khlebpriemnykh i zernopererabatyvayushchikh predpriyatiakh. [Book]

Artimovich, P. V.

231pp. (1973) [35 ref. Ru] Moscow, USSR; Kolos. Price 0.79r

Information on automation at grain processing plants is presented, with special reference to quality improvement and higher productivity. The following chapters are included: Production process automation at grain reception (pp. 7-124); Production process automation in grain processing (pp. 130-209); Automation of bulk storage rooms (pp. 210-212); and Measures ensuring successful application of automated production processes (pp. 213-229). STI

140

[Refrigeration of food products.] Zamrazanie zywnosci. [Book]

Postolski, J.; Gruda, Z.

432pp. (1974) [305 ref. Pl] Warsaw, Poland;

Wydawnictwo Naukowo-techniczne. Price 90zl

The book includes the following chapters:

Principles of refrigeration technology and techniques (pp. 20-204); Food products freezing technology (pp. 204-298); Storage transportation and distribution of frozen food products (pp. 298-372); Control of frozen food products production and storage (pp. 373-394); and Use of frozen food products (pp. 394-420). STI

141

[Physical methods of processing food products.]

Fizicheskie metody obrabotki pishchevykh produktov. [Book]

Rogov, I. A.; Gorbatov, A. V.

582pp. (1974) [498 ref. Ru] Moscow, USSR; Pishchevaya Promyshlennost'. Price 3.69r

Zheoretical and practical information is presented on the possibilities of application of a series of physical methods in the food processing industry. The following chapters are included: Structural and mechanical properties and principles of rheology applied to food products (pp. 10-190); Food products processing using infra-red irradiation (pp. 191-274); Food products processing using alternating electrical current (pp. 275-454); Food products processing in an electrostatic field (pp. 455-487); and Food products processing using acoustic methods (pp. 488-574). STI

142

[Automatic control and regulation of food production processes.] Avtomaticheskii kontrol' i regulirovanie protsessov pishchevykh proizvodstv. [Book]

Skoblo, D. I.; Glybin, I. P.

488pp. (1974) [102 ref. Ru] Kiev, USSR; Tekhnika. Price 1.62r

Problems relating to automation of processes at food producing plants are discussed. The following chapters are included: Technico-economic and organizational requirements of food industry automation processes (pp. 5-17); General problems of the introduction of automation into the food industry (pp. 17-34); Methods and organization of food industry automation design (pp. 35-50); Problems of successful introduction of elements and systems of automation at food industry plants (pp. 50-60); Elements and systems of automation; requirements and characteristics of their exploitation (pp. 61-107); Automatic control of processes at food manufacturing plants (pp. 107-150); Automatic temp. control (pp. 151-170); Automatic pressure and level control (pp. 171-202); Automatic control of materials usage (pp. 203-228); Automatic control of concn. of liquid products (pp. 229-271); Apparatus for automatic analysis (pp. 272-302); Automatic regulation (pp. 302-383); and Automatic regulation techniques (pp. 383-482). STI

143

Proceedings Fourth National Symposium on food processing wastes, March 26-28, 1973, Syracuse, New York. [Conference proceedings] **United States of America.** Environmental Protection Agency, National Environmental Research Center; **United States of America,** National Canners Association v+482pp. (1973) [many ref. En] Washington, D.C., USA; Government Printing Office Price \$4.50 [Corvallis, Oregon 97330, USA]

The proceedings of the Symposium are issued as EPA-660/2-73-031 in the Environmental Protection Technology Series. Papers presented include: New methods under investigation for the utilization of fish solubles, a fishery by-product, as a means of pollution abatement, by J. H. Green, S. L. Paskell, D. Goldmintz, & L. C. Schisler (pp. 72-95, 22 ref.); Exchange properties of a soil used for the disposal of alkali cannery wastes, by L. R. Webber, T. G. Stevens & D. A. Tel (pp. 96-103, 3 ref.); Treatment of fish and vegetable processing waste-lagoon effluent by soil bio-filtration, by V. K. Chawla (pp. 104-124, 22 ref.); Pretreatment of combined municipal and potato processing wastes, by G. O. Fossum (pp. 326-351, 5 ref.); and Evaluation of research and development needs for the food processing industry, by F. J. Agardy (pp. 460-472). A further 19 papers are abstracted separately and indexed under **USA, Environmental Protection Agency, National Environmental Research Centre [Symposium].** VJG

PACKAGING

14 4

[Developments in packaging techniques in the food industry.] Rozvoj obalove techniky v potravinarskem prumyslu. [Book] Löfflerova, J.

196pp. (1974) [131 ref. Cs] Praha, Czechoslovakia; VUPP-STI. Price 116.40Kcs

The book includes the following chapters: The present situation and importance of packaging (pp. 7-10); Development trends in packaging materials in food industry (pp. 10-59); Development of plastics films and improvements in traditional packaging materials (pp. 59-93); Packaging machinery (pp. 93-112); Closing, labelling and marking (pp. 112-134); Health aspects of packaging techniques (pp. 134-149); Packaging waste with respect to environmental protection (pp. 149-175); and Developments in the production of modern packaging materials (pp. 175-182). STI

14 5

[Manufacture of metal cans.] Proizvodstvo zhestyanoi konservnoi tary. [Book] Chupakhin, V. M.; Leonov, I. T. 432pp. (1974) [31 ref. Ru] Moscow, USSR; Pishchevaya Promyshlennost'. Price 1.13r

The book includes the following chapters: Metal containers for the canning industry and principal processes for their manufacture (pp. 6-59); Machines for the manufacture of metal cans for preserved foods (pp. 59-76); Can processing lines and individual machines (pp. 76-127); Top and bottom sealing and finishing machines (pp. 127-227); Can conveying and transportation equipment (pp. 227-300); Automatic and semi-automatic sealing machines (pp. 300-347); Hermetic seal testing equipment (pp. 347-374); Lacquering and printing of tin sheets (pp. 374-407); and Removal of lead from tin sheet waste (pp. 407-424). STI

146

Chemistry of food packaging. [Conference proceedings]

Swalm, C. M. (**United States of America,** American Chemical Society) (Editor)

Advances in Chemistry Series 135, 109pp. ISBN 0-8412-0205-2 (1974) [many ref. En] [American Chemical Society, Washington DC, USA]

This symposium sponsored by the Division of Agricultural and Food Chemistry at the 166th Meeting of the American Chemical Society, held in Chicago on Aug. 30, 1973, includes 9 papers which are abstracted separately and are in the author index under **USA, American Chemical Society [Symposium].** AL

NEW & CONVENIENCE FOODS

147

Compressed food bars. [Book]

Gillies, M. T.

Food Technology Review, Noyes Data Corporation

No. 18, ix + 116pp. ISBN 0-8155-0547-7 (1974)

[many ref. En] Park Ridge, New Jersey, USA; Noyes Data Corp. Price \$12

This book condenses vital, scattered data and provides a sound background to the field of concentrated food manufacture. Information is arranged under the following headings: Recovery of compressed dehydrated foods (including predrying processes, freeze-drying and associated operations) (pp. 3-42, 7 ref.); The effect of compression on the texture of dehydrated vegetables (pp. 43-50, 11 ref.); Reversible compression of freeze-dried fruit (pp. 51-57); Food bars edible in 2 forms (including design parameters, experimental procedures and product evaluation) (pp. 58-76); Combination food bars for individual rations (pp. 77-87); Nonreversibly compressed dehydrated bars (pp. 88-98); and Miscellaneous bars (all-purpose matrix; compressed, dehydrated bread; coated, dehydrated, high-protein food; and bar with oil or fat binder) (pp. 99-116). Several chapters incorporate information on the use of milk and milk products in food bars. VJG

BEVERAGES - WINE, SPIRITS, TEA, COFFEE, WATER

148

[International bibliography on wine. II. 1965-1970 and subject index 1966-1970 for *Mitteilungen Rebe und Wein*.] Internationale Weinbibliographie. II. 1965-1970 und Sachverzeichnis 1966-1970 der *Mitteilungen Rebe und Wein*. [Book]
Dumbacher, E. (Editor)
over 100pp. (1971) [De] Vienna, Austria; Typographische Anstalt

This comprehensive work covers the literature on wine under the following headings: General, Vine, Viticulture, Grape processing, Analysis, and Wine economy (industry). Tables of contents and an explanatory introduction on usage are given in German, English, French and Spanish. The periodicals used are listed in alphabetical order, and there is also a complete author index. HBr

149

[Practical guide to malting and brewing.] Guide pratique de malterie et de brasserie. [Book]
Vermeylen, J.
298pp. (1973) [Fr] Brussels, Belgium; Fondation Arthur Belgeonne Price 400FB [Inst. Supérieur des Fermentations, Ghent, Belgium]

This book, intended as a guide for people employed in the malting and brewing industries, contains 2 sections: The malthouse (pp. 11-104); and The brewery (pp. 105-289), each containing several chapters. These are: Barley (pp. 13-20); Handling and cleaning of barley (pp. 20-49); Steeping (pp. 49-55); Germination (pp. 56-77); Kilning (pp. 77-90); Recently developed equipment and methods (pp. 90-96); Treatment of malt after kilning (pp. 96-102); Special malts (pp. 102-103); Properties of malt (p. 104); Raw materials (pp. 107-122); Crushing of malt (pp. 122-128); Mashing (pp. 129-136); Wort filtration and washing of the spent grains (pp. 136-147); Boiling and hopping of wort (pp. 147-165); Refrigeration and clarification of wort (pp. 165-177); Fermentation (pp. 177-198); Storage (pp. 198-206); Top fermentation (pp. 206-211); Filtration of beer (pp. 211-223); Racking (pp. 224-232); Bottling (pp. 232-256); Handling during bottling (pp. 256-269); Stability, quality and defects of beer (pp. 269-282); Losses in breweries (pp. 282-284); Automation (pp. 284-286); and Sale of beer (pp. 287-289). JA

150

[Science and techniques of wine. Vol. 1. Analysis and control of wines.] Sciences et techniques du vin. Tome 1. Analyse et contrôle des vins. [Book]
Ribereau-Gayon, J.; Peynaud, E.; Sudraud, P.; Ribereau-Gayon, P.

xiv+671pp. (1972) [many ref. Fr] Paris, France; Dunod Price 195F [Sta. Agronomique et Oenologique, Bordeaux, France]

This first volume in a 4 volume series is a complete revision of a book of the same name published in 1958 and now out of print. The book contains the following chapters: Bulk volume, relative density and dry extract (pp. 9-40, 13 ref.); Ethyl alcohol (pp. 41-87, 42 ref.); Total acidity (pp. 89-116, 24 ref.); Volatile acidity (pp. 117-130, 27 ref.); Organic acids (pp. 141-212, many ref.); Hydrogen ion concentration (pH) (pp. 213-235, 17 ref.); Mineral matter (pp. 237-286, many ref.); Glucides (sugars, polyosides, pectins) (pp. 287-338, 54 ref.); Poly-alcohols (pp. 339-361, 38 ref.); Volatile and aroma compounds (pp. 363-418, 70 ref.); Nitrogen compounds (pp. 419-446, 46 ref.); Sulphur dioxide, sorbic acid and ascorbic acid (pp. 447-470, 59 ref.); Phenolic compounds (pp. 471-514, 51 ref.); Oxidation-reduction potential (pp. 515-541, 35 ref.); Microbiological controls and trials applied to wines (pp. 543-567, 59 ref.); Special wines and spoiled wines (pp. 569-589, 21 ref.); Research on watering of wine (pp. 591-612, 20 ref.); Various types of adulteration (pp. 613-647, 38 ref.); and Disinfectants, sweeteners and pesticide residues (pp. 649-671, 80 ref.). JA

151

[Chemistry and technology of hops.] Chemie und Technologie des Hopfens. [Book]
Knorr, F.; Kremkow, C.
183pp. ISBN 3 481 00623 X (1972) [many ref. De] Nuremberg, Federal Republic of Germany; Verlag Hans Carl Price DM 31 [Versuchsanstalt für Brauerei der Landesgewerbeanstalt Bayern, Nuremberg, Federal Republic of Germany]

This textbook includes the following chapters: Nomenclature of hop preparations and hop constituents (pp. 13-18); Chemistry of α -acids (pp. 18-53); Chemistry of β -acids (pp. 53-64); Chemistry of γ -acids (pp. 64-65); Chemistry of δ -acids (pp. 65-66); Synthesis of α - and β -acids (pp. 66-68); Total chemical synthesis of humulopicroles [α - and β -acids] (pp. 68-69); Biosynthesis of humulopicroles (pp. 69-72); Naturally occurring hard resin constituents (pp. 72-73); Hop oil (pp. 73-78); hop tannins (pp. 78-83); Other hop constituents (pp. 83-88); Commercial analysis of hops and hop preparations (pp. 89-116); Hopping of beer (pp. 117-154); and Analytical methods (pp. 154-173). An appendix gives a form for calculation of hop dosage in the brewhouse. A 7-page subject index is included. AJDW

152

[Wine evaluation and the language of wine.] Weinbewertung und Weinansprache. [Book]
Jakob, L.
44pp. (1973) [De] Neustadt an der Weinstrasse, Federal Republic of Germany; Verlag D. Meininger

This booklet includes the following sections:

Evaluation of wines (pp. 6-10); Official testing of high-quality wines (pp. 11-12); Wine quality trials (p. 12); The German wine seal (p. 13); Wines for diabetics (pp. 13-14); Determination of consumer requirements (pp. 15-16); Consumer preferences (pp. 17-18); Storage of wines, and selection of high-quality wines (pp. 18-20); Organization of a wine-tasting sessions (pp. 20-21); Wine terms (pp. 22-35); Composition and characteristics of wine (pp. 36-41); and Grape varieties and the wines produced from them (pp. 42-44). AJDW

153

[Technology of the grain and potato distillery.]

Technologie der Getreide- und Kartoffelbrennerei. [Book]

Kreipe, H.

2nd edition 442pp. (1972) [many ref. De] Nuremberg, Federal Republic of Germany; Verlag Hans Carl Price DM 48 [Inst. für Gärungsgewerbe und Biotech., Berlin (West)]

This revised and expanded second edition contains the following chapters: The history of alcoholic beverages (pp. 17-18); Raw materials for manufacture of spirits by fermentation (pp. 18-21); Carbohydrates (pp. 21-40); Alcoholic fermentation (pp. 40-53); Enzymes (pp. 53-62); Process water (pp. 63-73); Steam generation (pp. 73-94); Saccharifying agents (pp. 95-131); Distillation processes and equipment (pp. 131-249); Operation of grain distilleries (pp. 249-278); Operation of potato distilleries (pp. 278-303); Continuous processes (pp. 303-307); Alcohol yield (pp. 307-314); Disposal and utilization of distillation residues (pp. 314-321); Microbiological aspects (pp. 321-335); Energy requirements (pp. 336-338); Process control (pp. 338-385); Determination of alcohol content (pp. 385-391); The alcohol monopoly laws (pp. 392-407); and Training in distillery technology (pp. 407-415). A 4-page bibliography of textbooks and trade journals is given, together with a 14-page subject index. AJDW

154

[Non-alcoholic beverages. Raw materials, production, legal requirements.] Alkoholfreie Erfrischungsgetränke. Rohstoffe, Produktion, Lebensmittelrechtliche Bestimmungen. [Book] Schumann, G.

216pp. (1974) [many ref. De] Versuchs- und Lehranstalt für Brauerei, Berlin (West)]

This book, intended for personnel in the soft drink industry, is divided into the following sections: The history of the soft drinks industry (pp. 3-7); The range of non-alcoholic soft drinks (pp. 8-9); Mineral waters (pp. 10-18); Raw materials and additives in the manufacture of soft drinks (pp. 19-99); Essences and soft drink bases (pp. 100-109); Manufacture and processing of soft drink bases (pp. 110-115); Technology of manufacture and bottling of beverages (pp. 116-174); and Legal aspects (pp. 175-216). AJDW

155

Biological methods for the assessment of water quality. [Book]

Cairns, J., Jr.; Dickson, K. L. (Editors) vii+256pp. ISBN 04-528000-16 (1973) [many ref. En] Philadelphia, Pennsylvania, USA; American Society for Testing and Materials Price \$16.25 [Polytechnic Inst., Virginia, USA]

This book which is issued as American Society for Testing and Materials, Technical Publication 528, includes the papers presented at a Symposium on Biological methods for the assessment of water quality, held in Los Angeles, California on 26-29 June, 1972. Papers included are: Interaction of engineers and biologists in water quality management, by W. W. Eckenfelder, Jr. (pp. 3-5); The ABC's of pollutant bioassay using fish, by J. B. Sprague (pp. 6-30, 47 ref.); Mixing zone concepts, by C. M. Fetterolf, Jr. (pp. 31-45, 7 ref.); Biological monitoring of the aquatic environment, by C. I. Weber (pp. 46-60, 51 ref.); Bacteria and the assessment of water quality, by T. L. Bott (pp. 61-75, 74 ref.); Use of algae, especially diatoms, in the assessment of water quality, by R. Patrick (pp. 76-95, 41 ref.); Use of aquatic invertebrates in the assessment of water quality, by A. R. Gauvin (pp. 96-116, 27 ref.); Continuous-flow bioassays with aquatic organisms: procedures and applications, by W. A. Brungs (pp. 117-126, 23 ref.); A tentative proposal for a rapid in-plant biological monitoring system, by J. Cairns, Jr., R. E. Sparks & W. T. Waller (pp. 127-147, 4 ref.); [Continued in following abstr.] VJG

156

Biological methods for the assessment of water quality. [Book]

Cairns, J., Jr.; Dickson, K. L. (Editors) vii+256pp. ISBN 04-528000-16 (1973) [many ref. En] Philadelphia, Pennsylvania, USA; American Society for Testing and Materials Price \$16.25 [Polytechnic Inst., Virginia, USA]

[Continued from preceding abstr.] Rapid biological monitoring systems for determining aquatic community structure in receiving systems, by J. Cairns, Jr., K. L. Dickson & G. Lanza (pp. 148-163, 28 ref.); Use of toxicity tests with fish in water pollution control, by C. E. Stephan & D. I. Mount (pp. 164-177, 14 ref.); Assessment of fish flesh tainting substances, by N. A. Thomas (pp. 178-193, 26 ref.); Use of histologic and histochemical assessments in the prognosis of the effects of aquatic pollutants, by D. E. Hinton, W. M. Kendall & B. B. Silver (pp. 194-208, 30 ref.); Stabilization oxygen demand, by V. T. Stack, Jr. (pp. 209-220, 3 ref.); Microbiological inhibition testing procedure, by P. J. Marks (pp. 221-226, 2 ref.); Use of artificial substrate samplers to assess water pollution, by T. W. Beak, T. C. Griffing & A. G. Appleby (pp. 227-241, 35 ref.); and Mobile bioassay laboratories, by R. M. Gerhold (pp. 242-256, 34 ref.) VJG

157

[Handbook of wine production.] Spravochnik po vinodeliyu. [Book]

Maltabar, V. M.; Shpritsman, E. M.
408pp. (1973) [25 ref. Ru] Moscow, USSR;
Pishchevaya Promyshlennost'. Price 1.48r

Information relating to the raw materials and production processes in grape wine manufacture, and production of sparkling wine and brandies are presented. Equipment used is dealt with as well as microbiological and chemical control and waste utilization. The following chapters are included: Grape wine technology (pp. 3-60); Sparkling wine technology (pp. 61-77); Brandy technology (pp. 78-100); Microbiology of wine (pp. 101-117); Chemistry and chemical control in wine production (pp. 118-181); Waste disposal (pp. 182-197); and Materials used in wine production (pp. 198-405).
STI

158

[Technical and chemical control in distilleries.]

Tekhnokhimicheskii kontrol'spirtovogo proizvodstva. [Book]

Rukhlyadeva, A. P.
355pp. (1974) [Ru] Moscow, USSR; Pishchevaya Promyshlennost'. Price 1.22r

Modern methods of control for all distillery processes are dealt with. The following chapters are included: Physico-chemical methods of analysis and their theoretical basis (pp. 5-55); General control methods (pp. 56-144); Saccharification materials (pp. 256-274); Intermediate products (pp. 275-286); Ripened wort and yeast (pp. 286-313); and Finished products and effluents (pp. 314-333).
STI

159

[Collection of technological instructions, rules and standardized materials for the wine industry.]

Sbornik tekhnologicheskikh instruktsii, pravil i normativnykh materialov po vinodel'cheskoi promyshlennosti. [Book]

Valuiko, G. G.
628pp. (1973) [Ru] Moscow, USSR; Pishchevaya Promyshlennost'. Price 2.23r

The book includes the following chapters: Technological instructions relating to the production of grape, fruit and sparkling wines, brandies and juices (pp. 6-269); Standardization of yield, losses and wastage in wine production, and profitability (pp. 270-512); and Technological and microbiological control in the wine producing industry (pp. 513-618).
STI

160

[Production of spirits.] Vyroba lihovin. [Book]

Gregr, V.; Uher, J.
416pp. (1974) [many ref. Cs, en, ru, de] Prague, Czechoslovakia; Nakladatelstvi Technice

Literatury. Price 46.00Kcs

This, the 2nd, revised edition, includes new information on the theoretical principles of the technology, microbiology, biochemistry, quality control and effluent purification aspects. The following chapters are included: Raw materials for alcohol production (pp. 21-92); Microbiology and biochemistry of fermentation during spirits production (pp. 93-119); Fermentation processes during distillates manufacture (pp. 120-136); Distillation of fermented materials and rectification of distillates (pp. 137-164); Manufacture of different kinds of brandy (pp. 165-207); Preparation of aromatic products (pp. 208-317); Sweetened and unsweetened spirits manufacture (pp. 218-236); Recipes for the manufacture of sweetened and unsweetened spirits (pp. 237-275); Processing of distillates for the manufacture of other kinds of spirits (pp. 276-305); Storage of spirits (pp. 303-318); Analytical methods (pp. 319-328); Chemical and microbiological control (pp. 329-343); Testing and evaluation of spirits (pp. 344-388); and Effluent purification and disposal (pp. 389-393).
STI

161

The world tea economy. [Book]

Sarkar, G. K.

xviii + 237pp. ISBN 19-560174-2 (1972) [many ref. En] Calcutta, India; Oxford Univ. Press Price £2.80 [Nat. Council of Applied Economic Res., New Delhi, India]

This book considers together the various aspects of tea involving its production, consumption, prices and trade, as well as problems and policies relating to the tea economy in a global sense. Chapters included are: Introduction (pp. 1-6); A survey of tea production and consumption (pp. 7-61); The supply and demand functions of tea (pp. 66-82); A study of tea prices (pp. 83-98); A review of world tea trade (pp. 104-130); The world tea economy: problems and policies (pp. 131-152); Tea and the international control schemes (pp. 153-162); International regulation of tea exports: a historical survey (pp. 163-174); Long term policies for the tea economy (pp. 175-194); and Epilogue (pp. 195-213). 2 appendices are included: FAO projections on tea; and A note on the retail prices of tea.
VJG

162

[An outline of brewing.] Abriss der Bierbrauerei. [Book]

Narziss, L.

vii + 300pp. ISBN 3-432-01736-7 (1972) [De] Stuttgart, Federal Republic of Germany; Ferdinand Enke Verlag Price DM39.80

This work is based on the 3 vol. of the comprehensive treatise on brewing (Die Bierbrauerei) issued by the same publishers; the literature up to the spring of 1971 has been processed for incorporation into this new edition. The book contains the following chapters: Technology of malt production (pp. 1-82);

Technology of wort production (pp. 83-170); Technology of fermentation (pp. 171-224); Beer filtration (pp. 225-238); Racking and bottling operations (pp. 239-257); Beer losses (pp. 258-263); and The finished beer (pp. 264-281). A useful 18-pp. subject index is included. HB

163

Pineapple waste studies (Study I). [Book]
Ismail, K. B.; Abdullah, J.; Yin, Y. S.
Bulletin, Food Technology Division, Ministry of Agriculture and Fisheries, Malaysia No. 135, 11pp. (1974) [En] Malaysia; Min. of Agric. & Fisheries Price\$2

This book records a study carried out in Malaysia by the Food Technology Division of the Ministry of Agriculture and Fisheries to explore the possibility of increasing the waste recovery from pineapple canneries. 2 grades of pineapples (C and D) were processed, cut and cubed. Wastes were collected and their wt. recorded. Cylinder recovery for the 2 grades was 24.9 and 23.4%, respectively. Skins and ends constituted about 70% of the total fruit processed and discarded peel contained approx. 15-18% of edible and recoverable flesh. Skins, ends and cores were macerated into a pulpy mash and the juice was extracted using a manually operated screw press. The residues were sun-dried to produce pineapple bran, which contained 6-8% crude protein and 22-28% crude fibre. Dry bran recovery was approx. 5% of the total wt. of fruit processed. Analysis indicated that bran may be a potential source of feed for ruminants. GL

164

[Hermetic tanks and protective coatings in wine production.] Germeticheskie rezervuary i zashchitnye pokrytiya v vinodelii. [Book]
Tyurin, S. T.; Bazanova, A. I.; Breitman, I. P. 159pp. (1974) [95 ref. Ru] Moscow, USSR; Pishchevaya Promyshlennost'. Price 0.57r

This book includes the following chapters: Conditions for use of large tanks (pp. 5-14); Concrete tanks (pp. 15-35); Metal tanks (pp. 36-43); Plastics tanks (pp. 44-47); Fitting (pp. 48-56); Testing of tanks and fittings to establish their hermetic closure (pp. 56-58); Safety rules during application of anticorrosive coatings (pp. 59-71); Treatment of tanks prior to application of protective coatings (pp. 72-80); General requirements for protective materials (pp. 82-83); Types and methods of applications of internal coatings (pp. 83-124); External coatings (pp. 124-132); Treatment and use of large tanks (pp. 132-136); and Economics of large tanks and application of protective materials (pp. 137-157). STI

165

[All the world's hard liquors.] Alle Schnäpse dieser Welt. [Book]
Andreae, I. 240pp. ISBN 3-512-00240-4 (1973) [De]

Stuttgart, Federal Republic of Germany; Seewald Verlag Price DM48

This book gives an illustrated account of the origins, manufacture and characteristics of numerous types of spirits and liqueurs from various countries. Other aspects briefly discussed include the composition and nomenclature of various wines and spirits, legislation in the Federal Republic of Germany, and the correct type of glass for various alcoholic beverages. AJDW

166

[Modern techniques in beer production.]
Sovremennaya tekhnika pivovarennogo proizvodstva. [Book]
Glavinskii, D. G.

278pp. (1974) [50 ref. Ru] Moscow, USSR; Pishchevaya Promyshlennost' Price 1.11r

Modern beer production techniques used in the USSR as well as abroad are discussed. The book includes the following chapters: Grain storage and treatment (pp. 5-47); Malt manufacture (pp. 48-86); Equipment for brewhouses (pp. 87-119); Equipment for beer fermentation and filtration rooms (pp. 120-150); Equipment for beer bottling rooms (pp. 151-233); Equipment for beer packaging materials stores and for dispatch rooms (pp. 234-256); and Mechanization of brewery sanitation and hygiene (pp. 257-272). STI

167

[Wine: manufacture, treatment, analysis.] Der Wein: Bereitung, Behandlung, Untersuchung. [Book]

Vogt, E.; Jakob, L.; Lemperle, E.; Weiss, E. Ed. 6, 302pp. ISBN 3-8001-1207-8 (1974) [many ref. De] Stuttgart, Federal Republic of Germany; Verlag Eugen Ulmer Price DM42

This is an extensive revision by Jakob, Lemperle & Weiss of the 5th (1968) edition of the book written by Vogt [see FSTA (1970) 2 2H190]. It consists of the following main chapters: Wine and viniculture (pp. 11-21); The grape (pp. 22-32); Grape juice (pp. 33-42); Must production (pp. 43-57); Fermentation (pp. 58-89); Stages in wine manufacture (pp. 90-150); Enrichment and deacidification of musts and wines (pp. 151-170); Defects and diseases of wine (pp. 172-196); Composition and assessment of wines (pp. 197-215); Dessert wines, sparkling wines and wine beverages (pp. 216-234); Fruit and berry wines (pp. 235-247); Residues of wine production and their utilization (pp. 248-253); and Analysis of musts and wines (pp. 254-291). SKK

168

[Trace elements in wine and other beverages.]
Spurenelemente in Wein und anderen Getränken. [Book]
E Schnauer, H. 220pp. ISBN 3-527-25452-8 (1974) [many ref. De] Weinheim/Bergstr., Federal Republic of Germany; Verlag Chemie GmbH Price DM78

This well-produced monograph lists modern methods for the detn. of trace elements, with full bibliographic support for the period up to 1971. The body of the work deals with the properties and incidence in wine and other beverages of Al, Sb, As, Pb, B, Br, Cd, Cr, Fe, F, I, Co, Cu, Li, Mn, Mo, Ni, Rb, Cs, Se, Ag, Hg, Si, Sr, Ba, Tl, Ti, U (and radioactivity), V, Bi, Zn and Sn. Some 130 tables, including summary tables of trace element contents in wines etc., and a useful 6pp. index are also included. SKK

169

Beverages: carbonated and noncarbonated. [Book] Woodroof, J. G.; Phillips, G. F. ix+526pp. ISBN 0-87055-159-0 (1974) [many ref. En] Westport, Connecticut, USA; AVI Publishing Co. Inc. Price \$32.00 (USA), \$33.00 (Foreign) [Dept. of Food Sci., Univ. of Georgia, Experiment, Georgia, USA]

Chapters in this book are: Growth history of carbonated beverages (pp. 1-39, 13 ref.); Production history of noncarbonated beverages (pp. 40-68, 8 ref.); Sweeteners for beverages (pp. 69-100, 35 ref.); Water in beverages (pp. 101-129, 10 ref.); Beverage acids, flavors, colors, and emulsifiers (pp. 130-178, 36 ref.); Carbonating and cooling beverages (pp. 179-195, 10 ref.); Carbonated beverage packaging (pp. 196-241, 21 ref.); Beverage production, equipment, and plant layout (pp. 242-266, 2 ref.); Quality control of beverages, by R. C. Lin (pp. 267-306, 43 ref.); Beverage product development, by J. J. Albrecht (pp. 307-326); Marketing and shelf-life of beverages (pp. 327-351, 12 ref.); Types of carbonated beverages (pp. 352-367, 17 ref.); Types of noncarbonated beverages (pp. 368-411, 24 ref.); Modified fruit juice beverages (pp. 412-430, 10 ref.); Disposal of waste (pp. 431-463, 23 ref.); and Summary and future outlook (pp. 464-475, 4 ref.). An appendix (pp. 476-518) contains the following: purchase description (LP/P DES S-38-69, 22 Oct. 1969) of carbonated and noncarbonated beverages for the Armed Forces; proposed voluntary product standard TS for glass bottles for carbonated soft drinks; bottled water quality standards; food additives: saccharin and its salts; definition and standard of identity for soda water as amended through June 30, 1968; proposed sanitation standard for facilities for handling and storing refined liquid sugar products for the soft drink industry; State of Georgia Department of Agriculture regulations applicable to commercially bottled water; State of Georgia Department of Agriculture bottling act; and various tables. JA

170

Fruit and vegetable juice processing. [Book] Paul, J. K. *Food Technology Review*, Noyes Data Corporation No. 21, x+277pp. ISBN 0-8155-0565-5 (1975) [En] Park Ridge, New Jersey, USA; Noyes Data Corp. Price \$36

This book is based on US patents issued mostly since 1964 and relating to fruit and vegetable juice processing. The information is arranged under the following headings: Manufacturing techniques (including those for apple, citrus, grape and tomato juice) (pp. 2-45); Concentration processes (including those for citrus juices, osmotic processes, concentration of pineapple and tomato juice, and freeze-concentration) (pp. 46-112); Dehydration (including drum drying, foam mat processes, spray drying, and vacuum drying) (pp. 113-144); Freeze-drying (including fluidized bed processes, spray-drying, continuous processes, foam drying processes, slush freezing and the thermal shock process) (pp. 145-197); Stabilization processes (including antioxidant compositions, chemical preservation, clarification of fruit juices, cloud stabilization, deaeration processes, and sterilization) (pp. 198-227); Flavours from fruit juices (pp. 228-245); Juice enhancers (pp. 246-258); and Miscellaneous processes (including fruit juice and milk beverages, fortified citrus juice and juice dispensers) (pp. 259-272). Company, inventor and patent number indexes are also included. VJG

171

[Notes on practical winemaking.] Note di Enologia Pratica. [Book] Rivella, E. Ed. 2, 349pp. (1974) [It] Rome, Italy; Luici Scialpi Editore Price L4.000

This book is a collection of the articles published in the section Note di Enologia Pratica in the journal Vini d'Italia, issues 54 to 86 (May/June 1968 to Sept./Oct. 1973). It gives a good, general account of many aspects of modern winemaking techniques. HBr

172

[Pocket lexicon on sparkling wine.] Das kleine Sektlexikon. [Book] Arntz, H. 74pp. ISBN 3-512-00360-5 (1974) [De] Stuttgart, Federal Republic of Germany; Seewald Verlag Price DM7.80

Although small, this is an extremely useful publication, giving the definition of many of the terms used in the sparkling wine industry, often with explanatory comments. For example, the term 'sec' is not simply translated, but related to the varying degrees of sweetness found in the industry. A simple but effective system of cross-referencing (by the use of an arrow to indicate points of entry) enhances the value of the work. HBr

173

Technology of fruit juice concentrates - chemical composition of fruit juices. [Conference proceedings] Bielig, H.-J. (Chairman)

Report, International Federation of Fruit Juice Producers, Scientific-Technical Commission No. 13, 346pp. ISBN 3-260-03687-3 (1973) [many ref. En, Fr, De] Vienna, Austria; International Federation of Fruit Juice Producers

Papers given at the 1973 meeting of the Scientific and Technical Commission of the International Federation of Fruit Juice Producers, held in Vienna, include: Symposium of fruit juice concentrates - introduction and survey, by W. Pilnik (pp. 19-41, 59 ref., En); Grape juice concentrate, by J. Weiss (pp. 57-71, 72 ref., De); and Osmophilic yeasts in fruit juice concentrates, by S. Windisch (pp. 217-226, De). A further 11 papers are abstracted separately and indexed additionally under International Federation of Fruit Juice Producers [Symposium]. VJG

174

Water-borne goitrogens and their role in the etiology of endemic goiter. [Review]

Gaitan, E.

World Review of Nutrition and Dietetics 17, 53-90 ISBN 3-8055-1336-4 (1973) [101 ref. En] [Endocrine Unit, School of Med., Univ. del Valle, Cali, Colombia]

175

[Technology of branded beers.] Tekhnologiya sortovogo piva. [Book]

Zazirnaya, M. V.

135pp. (1974) [8 ref. Ru] Kiev, USSR; Tekhnika. Price 0.31r

Information on the production of individual kinds of beer is presented, as well as on the characteristics of approx. 60 kinds of beer manufactured in the USSR. The book includes the following chapters: Production of special beers (pp. 3-32); Kinds of beer manufactured in the USSR and their particular production processes (pp. 32-128); and Some typical and original beers manufactured abroad (pp. 128-135). STI

FRUIT & VEGETABLES

176

[Chemical and technological data of quality of new tomato varieties.]

Urdeva, E.; Botev, G.; Arolski, A.

Nauchni Trudove, Nauchnoizledovatel'ski Institut po Konserv Promishlenost, Plovdiv 9, 103-123 (1972) [12 ref. Bg, en]

Chemical and technological examination were made in 1967-1968 of the following tomato var.: Hebros, Heinz 1350, Heinz 1370, VF/145-21-4, ES-24 and Rudgers. These included: physical properties and chemical analysis of the raw material; physico-chemical analysis of the tomato puree and juice; wastage; and taste of the finished

products. The Rudgers variety is the least suitable for processing. Purees and juices made from the investigated var. possessed flavour and consistency which complied with the requirements of foreign customers; the fruits are firm, of attractive colour, regular in shape, smooth, containing high DM, (5.96-7.27%) and lycopene (4.23-5.17 mg%); the transport properties are excellent. STI

177

Banana diseases including plantains and abaca.

[Book]

Wardlaw, C. W.

Ed. 2 xii+878pp. ISBN 0-582-46616-4 (1972) [many ref. En] London, UK; Longman Group Ltd. Price £13.00 [Univ., Manchester, UK]

This enlarged edition has the 1961 edition reprinted as part I (pp. 1-575) while the new material of the past decade has been incorporated in part II (pp. 579-757). The book should prove a useful reference work for students, planters, research workers and organizations concerned with tropical agriculture in general. Chapters included are: Botany and cultivation (pp. 1-31); Non-infectious diseases: climatic, cultural and other effects (pp. 32-52); Non-infectious diseases: mineral deficiencies and related conditions (pp. 53-67); The virus diseases: bunchy top (pp. 68-115); Mosaic, infectious chlorosis and other virus diseases (pp. 116-145); Bacterial diseases of rhizomes and roots (pp. 146-187); Panama disease (vascular wilt) (pp. 188-238); Panama disease (concluded) (pp. 239-276); Rhizome and root diseases caused by fungi (pp. 277-298); Bacterial and fungal diseases of heart-leaves and pseudostem (pp. 299-313); Leaf-spot (Sigatoka disease) (pp. 314-341); Sigatoka disease: control measures (pp. 342-379); Other leaf diseases (pp. 380-407); Plantation diseases of fruit (pp. 408-438); Harvesting, packing, transport and ripening (pp. 439-465); Causes and extent of wastage in harvested fruit (pp. 466-487); Main-stalk rot, finger-dropping and scarring (pp. 488-508); Other fruit diseases (pp. 509-551). 4 appendices (pp. 552-575) are included at the end of part I. Part II contains the following chapters: Botany, cultivation and non-infectious diseases (pp. 579-609); (Continued in following abstr.) VJG

178

Banana diseases including plantains and abaca.

[Book]

Wardlaw, C. W.

Ed. 2 xii+878pp. ISBN 0-582-46616-4 (1972) [many ref. En] London, UK; Longman Group Ltd. Price £13.00 [Univ., Manchester, UK]

(Continued from preceding abstr.) Further on virus diseases (pp. 610-621); Bacterial and fungal diseases of roots, rhizomes and pseudostems (pp. 622-650); Recent investigations of leaf diseases (pp. 651-698); Diseases of fruit before and after harvesting (pp. 699-742); The black-root complex (pp. 743-757). An appendix (pp. 758-763) and a 93pp. bibliography are included at the end of part II. VJG

179

Tropical crops: Monocotyledons. [Book]

Purseglove, J. W.

Vol. I & II xvi + 607pp. ISBN 0-582-46648-2 & 0-582-46659-8 (1972) [many ref. En] London, UK; Longman Group Ltd. Price £6.00 & £5.00 [East Malling Res. Sta., Kent, UK]

These 2 volumes present basic information on the botany and agronomy of tropical monocotyledonous crops. The crops are arranged under their families, which, with their genera and species, are given in alphabetical order. The information on each crop is arranged under the headings: common names, chromosome numbers, uses, systematics, origin and distribution, cultivars, ecology, structure, pollination, germination, chemical composition, propagation, husbandry, major diseases and pests, improvement and breeding, and production and trade. Families covered include: Agavaceae; Alliaceae (onion, leek, rakkyo, garlic, chives); Araceae (dasheen, eddoo, tannia); Bromeliaceae (pineapple); Cannaceae; Cyclanthaceae; Dioscoreaceae; Gramineae (Job's tears, millets, rice, sugar cane, sorghum, wheat, maize); Marantaceae (arrowroot); Musaceae (banana); Orchidaceae (vanilla); Palmae (betel palm, coconut, oil palm); Pandanaceae; Taccaceae; and Zingiberaceae (turmeric, cardamom, ginger). The scientific names of the crops are given alphabetically in an appendix, together with a glossary of botanical terms. VJG

180

[Polyphenols in fruits and berries and product colour formation.] Polyfenoly plodov i yagod i formirovanie tsвета produktov. [Book]

Skorikova, Yu. G.

230pp. (1973) [207 ref. Ru] Moscow, USSR; Pishchevaya Promyshlennost'. Price 1.29r

This book contains the following chapters: Polyphenols in fruits and berries (pp. 9-31); Methods of determining polyphenols (pp. 32-44); Contents of polyphenols in fruits and berries (pp. 45-71); Changes of polyphenols and colour formation in products (pp. 72-113); Factors affecting polyphenols during fruit processing (pp. 114-145); Methods of preventing oxidation changes (pp. 146-160); and Economic conditions and methods of manufacturing fruit and berry preserves (pp. 161-219). STI

181

Nutritional qualities of fresh fruits and vegetables. [Book]

White, P. L.; Selvey, N. (Editors)

xii + 186pp. ISBN 0-87993-036-5 (1974) [many ref. En] Mount Kisco, New York, USA; Futura Publishing Co. Inc. Price \$12.50

This book consists of papers on the nutritional qualities of fresh fruits and vegetables, presented at a symposium sponsored by the American Medical

Association Council on Foods and Nutrition with the cooperation of the USDA, held on Nov. 9 and 10, 1972 at San Diego, California. Papers presented were: Trends in fresh fruit and vegetable consumption and their nutritional implications, by R. L. Rizek, D. A. Swope & B. Peterkin (pp. 1-28); Fruits and vegetables: USDA research for tables of food composition, by B. K. Watt, E. W. Murphy & S. E. Gebhardt (pp. 29-49, 27 ref.); Nutritive losses in the home storage and preparation of raw fruits and vegetables, by C. Y. W. Ang & G. E. Livingston (pp. 51-65, 28 ref.); Semi-processed fruit and vegetable products, by M. Meinken (pp. 65-79, 22 ref.); Influence of agronomic practices on nutritional values, by Salomon (pp. 81-86, 20 ref.); Varietal influence on nutritional value, by M. A. Stevens (pp. 87-110, 28 ref.); The influence of harvest time on nutritional value, by Tung-Ching Lee & C. O. Chichester (pp. 111-120, 39 ref.); The technology of handling fresh fruits and vegetables, by D. L. Anderson (pp. 121-132); [Continued in following abstr.] VJG

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Nutritional qualities of fresh fruits and vegetables. [Book]

White, P. L.; Selvey, N. (Editors)

xii + 186pp. ISBN 0-87993-036-5 (1974) [many ref. En] Mount Kisco, New York, USA; Futura Publishing Co. Inc. Price \$12.50

[Continued from preceding abstr.] The influence of storage, transportation and marketing conditions on composition and nutritional values of fruits and vegetables, by P. H. Heinze (pp. 133-146, 29 ref.); The prospects for genetic engineering to improve nutritional values, by W. H. Gabelman (pp. 147-155, 1 ref.); Genetic engineering to remove undesirable compounds and unattractive characteristics, by A. E. Kehr (pp. 157-168, 34 ref.); The economics of genetic engineering, by E. A. Crosby (pp. 169-175); and Vitamin induction in fruits and vegetables with bioregulators, by V. P. Maier & H. Yokoyama (pp. 177). An appendix: Task force recommendations, symposium on nutritional qualities of fresh fruits and vegetables, is included. VJG

183

Cassava processing and storage. Proceedings of an interdisciplinary workshop, Pattaya, Thailand, 17-19 April, 1974. [Conference proceedings]

Araullo, E. V.; Nestel, B.; Campbell, M. (Editors) *International Development Research Centre Monographs* IDRC-031e, 125pp. ISBN 0-88936-036-7 (1974) [many ref. En, fr] Ottawa, Canada; International Development Research Centre. Price \$5.00

Papers presented at an interdisciplinary workshop held in Pattaya, Thailand on 17-19 April, 1974, were: World market prospects for cassava and its products, by T. P. Phillips (pp. 13-19, 6 ref.); Agronomic potential for cassava production by J. H. Cock (pp. 21-26, 51 ref.); Storage of

cassava roots and related post-harvest problems, by R. H. Booth & D. G. Coursey (pp. 43-49, 23 ref.); Problems of the Thai tapioca trade, by D. Tulananda (pp. 51-57); Problems and prospects in cassava production in India, by N. Hrishi (pp. 59-62, 1 ref.); The cassava industry of the Philippines, by L. S. Castillo (pp. 63-71, 18 ref.); Cultivation, processing, and utilization of cassava in Sri Lanka, by W. B. Wijeratne (pp. 73-75); Speciality food starches, by J. W. Knight (pp. 77-87); Technology of cassava chips and pellets processing in Indonesia, Malaysia, and Thailand, by F. Manurung (pp. 89-112, 23 ref.); Technology of cassava chips and pellets processing in Thailand, by Nguyen Cong Thanh (pp. 113-122, 29 ref.). VJG

184

Current trends in cassava research. [Book]

Nestel, B. L.

International Development Research Centre Monographs IDRC-036e, 32pp. ISBN 0-88936-041-3 (1974) [many ref. En, fr, es] Ottawa, Canada; International Development Research Centre. Price (microfiche ed.) \$1

This report is a revised and updated version of a paper presented at the Third International Symposium on 'Tropical root crops', held in Ibadan, Nigeria, on 2-9 Dec. 1973. Recent literature and a substantial volume of unpublished work are reviewed under the following headings: Cassava as a human food (pp. 9-10); Enriched and fortified cassava (p. 11); Cassava as an animal feed (pp. 12-14); Cassava toxicity (p. 15); Industrial use of cassava (p. 16); Economics of cassava production (pp. 17-18); Genetic improvement of cassava (pp. 19-20); Diseases and pests of cassava (pp. 21-22); Factors affecting yield (pp. 23-24); and Improved information systems (p. 25). A 7pp. bibliography (pp. 26-32) is included. VJG

185

Tomato production, processing and quality evaluation. [Book]

Gould, W. A.

viii + 445pp. ISBN 0-87055-162-0 (1974) [many ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc., Price \$32 (US) \$33 (Foreign) [Dept. of Horticulture, Ohio St. Univ., Ohio, USA]

The purpose of this book is to bring together the many interrelationships between production and processing for the manufacture of high quality products. The book is divided into 3 sections: Production (pp. 1-132); Processing (pp. 135-188); and Technology (pp. 191-364). Chapters included are: Introduction and history of the tomato industry (pp. 1-13, 5 ref.); Tomato culture and production for processing (pp. 14-46, 23 ref.); Genetics and breeding of processing tomatoes (pp. 47-64, 64 ref.); Tomato harvesting systems and methods (pp. 65-77, 25 ref.); Tomato-handling practices (pp. 78-85, 23 ref.); Tomato grading practices (pp. 86-111, 8 ref.); Preparation of tomatoes for processing (pp. 112-132, 16 ref.); Canning of tomatoes (pp. 135-149, 19 ref.);

Tomato juice manufacture (pp. 150-162, 11 ref.); Tomato pulp and paste manufacture (pp. 163-171, 3 ref.); Tomato catsup and chill sauce manufacture (pp. 172-181, 2 ref.); Soup preparation (pp. 182-188); Quality control, assurance, and evaluation (pp. 191-223); Examination of processed tomatoes and tomato products (pp. 224-227); Colour and colour measurement (pp. 228-244, 24 ref.); Viscosity (consistency) of tomato products (pp. 245-267, 18 ref.); Total acidity and pH (pp. 268-276, 3 ref.); [Continued in following abstr.] VJG

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Tomato production, processing and quality evaluation. [Book]

Gould, W. A.

viii + 445pp. ISBN 0-87055-162-0 (1974) [many ref. En] Westport, Connecticut, USA: AVI Publishing Co. Inc., Price \$32 (US) \$33 (Foreign) [Dept. of Horticulture, Ohio St. Univ., Ohio, USA]

[Continued from preceding abstr.] Flavour and flavour evaluation (pp. 277-285, 1 ref.); Drosophila and insect control (pp. 286-303, 13 ref.); Mould-counting methods and principles (pp. 304-333, 14 ref.); Spoilage of canned tomatoes and tomato products (pp. 334-346, 18 ref.); Composition of tomatoes (pp. 347-364, 73 ref.). 3 appendices are included: US standards for identity and grades, fill of container, factors of quality, definitions, inspection and score sheets (pp. 365-416); FDA-Part 53- Tomato products (pp. 417-426); and Quality control and evaluation forms (pp. 427-439). VJG

187

Vegetable storage.

United Kingdom, Electricity Council

Farmelectric Handbook No. 23, vi + 118pp. (1974) [En] [Farm-electric Centre, Nat. Agric. Centre, Kenilworth, CV8 2LS, UK]

This interesting handbook has been prepared to meet the increasing need for conditioning and storage facilities to enable potatoes and vegetables to be marketed in prime condition. It contains a section entitled Potato storage, which includes the following chapters: General considerations (pp. 1-8); The control of temperature (pp. 9-16); Ambient air ventilation (pp. 17-32); Refrigeration (pp. 33-35); Air conditioning (pp. 36-44); Control and monitoring (pp. 45-50); Lighting and grading (pp. 51-54); Building requirements (pp. 55-58) and The storage of seed potatoes (pp. 59-68). A second section entitled Vegetable storage, contains the following chapters: Principles of vegetable storage (pp. 69-77); Cooling with ambient air (pp. 78-87); Refrigerated storage (pp. 88-96); and New developments in storage techniques (pp. 97-102). 5 appendices are included: Annual electricity consumptions for various management systems for potato storage (pp. 103-104); The measurement of temperature and humidity in vegetable stores (pp. 105-111); Cooling load calculations for cold stores to run above 0°C (32°F) (pp. 112-116); Storage

conditions, expected storage life and heat production of the more common vegetables (p. 117) and Appropriate metric conversion factors (p. 118). GL

18 8

Coconuts. [Book]

Child, R.

Ed. 2, xiii + 335pp. ISBN 0-582-46675-X (1974)

[many ref. En] London, UK; Longman Group

Ltd. Price £10.00

This book should prove invaluable to planters, research workers and economists, but should also appeal to a general readership. Chapters included are: Historical background (pp. 1-13, 34 ref.); World arear and production (pp. 14-36, 68 ref.); Botany and characteristics of the coconut palm (pp. 37-54, 48 ref.); Coconut varieties (pp. 55-71, 53 ref.); Climate and soil (pp. 72-83, 20 ref.); Selection and breeding (pp. 84-99, 36 ref.); Establishment of plantations (pp. 100-115, 27 ref.); Care and maintenance of young plantations (pp. 116-129, 30 ref.); Nutritional requirements and fertilizer practice (pp. 130-156, 46 ref.); Cultivation and maintenance of adult plantations (pp. 157-171, 40 ref.); Principal insect pests (pp. 172-205, 77 ref.); Pests other than insects (pp. 206-212, 18 ref.); Diseases and damage (pp. 213-236, 79 ref.); The crop (pp. 237-257, 35 ref.); Coconut oil (pp. 258-272, 19 ref.); Copra cake (poonac) and desiccated coconut (pp. 273-283, 13 ref.); Coir and coir manufactures (pp. 284-294, 30 ref.); Toddy products (pp. 295-306, 33 ref.); Minor and domestic coconut products (pp. 307-316, 30 ref.) and Research and information (pp. 317-323, 1 ref.). VJG

18 9

Small fruit culture. [Book]

Shoemaker, J. S.

Ed. 4, vii + 339pp. ISBN 0-87055-173-6 (1975)

[many ref. En] Westport, Connecticut, USA; AVI

Publishing Co., Inc. Price \$19 (US) \$20 (Foreign)

[Agric. Expt. Sta., Univ. of Florida, Gainesville, Florida, USA]

This fourth edition retains the basic information of the previous edition but has been updated by the addition of new practical and technical developments. An extensive bibliography has been included to broaden the scope and increase the usefulness of the book, which should continue to be of use to instructors, students, growers, extension personnel, vocational groups etc. Each crop is considered from propagation through harvesting. Fruits considered are: Vinifera (European or California type) (pp. 1-21); American-type bunch grapes (pp. 21-77); French hybrid grapes (pp. 77-81); Muscadine grapes (pp. 81-95); Strawberries (pp. 96-178); Red raspberries (pp. 179-205); Black raspberries (pp. 206-218); Purple raspberries (pp. 219-220); Erect and semi-erect blackberries (pp. 221-226); Western trailing types (pp. 226-231);

Southeastern trailing blackberries or dewberries (pp. 231-239); Currants and gooseberries (pp. 240-248); Northern lowbush blueberries (pp. 249-259); Highbush blueberries (pp. 260-285); Rabbiteye blueberries (pp. 285-298); and Cranberries (pp. 299-331). VJG

190

Postharvest physiology, handling and utilization of tropical and subtropical fruits and vegetables. [Book]

Pantastico, E. B.

xiv + 560pp. ISBN 0-87055-156-6 (1975) [many

ref. En] Westport, Connecticut, USA; AVI

Publishing Co., Inc. Price \$39 (US) \$40 (Foreign)

[Coll. of Agric., Univ. of Philippines, Laguna, Philippines]

This book is primarily intended as a compact and comprehensive textbook on postharvest physiology and handling of horticultural crops but it should also be a useful reference source. Topics are discussed starting with basic principles and followed by a recent review of the literature. Chapters included are: Structure of fruits and vegetables, by E. B. Pantastico (pp. 1-24, 48 ref.); Preharvest factors affecting quality and physiology after harvest, by E. B. Pantastico (pp. 25-40, 92 ref.); Physicochemical changes during growth of storage organs, by S. B. Lodh & E. B. Pantastico (pp. 41-55, 56 ref.); Harvest indices, by E. B. Pantastico, H. Subramanyam, M. B. Bhatti, N. Ali & E. K. Akamine (pp. 56-74, 72 ref.); Ethylene action on ripening, by E. B. Pantastico, A. K. Mattoo & C. T. Phan (pp. 75-85, 38 ref.); Respiration and respiratory climacteric, by C. T. Phan, E. B. Pantastico, K. Ogata & K. Chachin (pp. 86-102, 47 ref.); Chemical changes during ripening and senescence, by A. K. Mattoo, T. Murata, E. B. Pantastico, K. Chachin, K. Ogata & C. T. Phan (pp. 103-127, 100 ref.); Morphological changes during maturation and senescence, by J. E. Baker (pp. 128-147, 38 ref.); Chemical modifications, by D. K. Salunkhe, J. Y. Do, E. B. Pantastico & K. Chachin (pp. 148-174, many ref.); Controlled atmosphere storage. 1. Biochemical considerations, by J. Y. Do, & D. K. Salunkhe (pp. 175-185, 59 ref.). [Continued in following abstr.] VJG

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Postharvest physiology, handling and utilization of tropical and subtropical fruits and vegetables. [Book]

Pantastico, E. B.

xiv + 560pp. ISBN 0-87055-156-6 (1975) [many

ref. En] Westport, Connecticut, USA; AVI

Publishing Co., Inc. Price \$39 (US) \$40 (Foreign)

[Coll. of Agric., Univ. of Philippines, Laguna, Philippines]

[Continued from preceding abstr.] Physiological and practical considerations, by R. Ulrich (pp. 186-200, 44 ref.); Individual commodity requirements, by T. T. Hatton, Jr., E. B. Pantastico & E. K. Akamine (pp. 201-218, 110 ref.); Irradiation, by I. S. Pablo, E. K. Akamine & K. Chachin (pp. 219-

235, 66 ref.); Harvesting, by A. K. Thompson, M. B. Bhatti & P. P. Rubio (pp. 236-245, 25 ref.); Bulk handling methods, by M. O'Brien (pp. 246-266, 16 ref.); Packinghouse operations, by E. K. Akamine, H. Kitigawa, H. Subramanyam & P. G. Long (pp. 267-282, 40 ref.); Principles of packaging, 1. General considerations, by R. E. Hardenburg (pp. 283-302, 72 ref.); 2. Consumer packaging with plastics, by C. W. Hall, R. E. Hardenburg & E. B. Pantastico (pp. 303-313, 19 ref.); Storage and commercial storage operations, by E. B. Pantastico, T. K. Chattopadhyay & H. Subramanyam (pp. 314-338, 46 ref.); Chilling injury, by E. B. Pantastico, A. K. Matto, T. Murata & K. Ogata (pp. 339-362, 130 ref.); Physiological disorders other than chilling injury. 1. Citrus, E. B. Pantastico, R. A. DeFossard & H. Safran (pp. 363-375); 2. Tomato, by E. B. Pantastico & F. Venter (pp. 376-380); 3. Other fruits and vegetables, by E. B. Pantastico, E. K. Akamine & H. Subramanyam (pp. 380-392, 109 ref.); Postharvest pathology. 1. General principles, by J. W. Eckert (pp. 393-414, 104 ref.); 2. Disease of tropical crops and their control, by J. W. Eckert, P. P. Rubio, A. K. Mattoo & A. K. Thompson (pp. 415-443, 129 ref.). [Cont. in following abstr.] VJG

192

Postharvest physiology, handling and utilization of tropical and subtropical fruits and vegetables.

[Book]

Pantastico, E. B.

xiv + 560pp. ISBN 0-87055-156-6 (1975) [many ref. En] Westport, Connecticut, USA; AVI Publishing Co., Inc. Price \$39 (US) \$40 (Foreign) [Coll. of Agric., Univ. of Philippines, Laguna, Philippines]

[Continued from preceding abstr.] Principles of transport and commercial transport operations, by W. Chace & E. B. Pantastico (pp. 444-466, 25 ref.); Quality of raw materials for processing, by R. Rodriguez, B. L. Raina, E. B. Pantastico & M. B. Bhatti (pp. 467-503, 73 ref.); Market preparation of tropical and subtropical fruits, by W. Grierson (pp. 504-513, 8 ref.); Marketing and handling practices in the tropics. 1. Southeast Asia: Analysis of general marketing practices, by G. R. Spinks & J. C. Abbott (pp. 514-527); 2. Thailand: Postharvest handling practices, by K. Bhanumnavin (pp. 527-532); 3. Fiji Islands and Western Samoa: Banana handling for export, by V. E. Sills & P. G. Long (pp. 532-538); 4. Hawaii: Papaya and pineapple handling for local and export markets, by E. K. Akamine (pp. 538-541); 5. West Indies: Handling of some tropical crops, by A. K. Thompson (pp. 542-545, 7 ref.). VJG

193

Handling, transportation and storage of fruits and vegetables. Vol. 2. Fruits and tree nuts. [Book]

Ryall, A. L.; Pentzer, W. T.

xi + 545pp. ISBN 0-87055-165-5 (1974) [many

ref. En] Westport, Connecticut, USA; AVI Publishing Co., Inc. Price \$34 (US) \$35 (Foreign)

This book describes the practices used by the fruit industry to supply markets with fresh fruits throughout the year. The information presented should be useful to students of horticulture and marketing, to individuals engaged in the commercial fruit industry, and to those who provide facilities and services for the handling, transportation and storage of fruits. Chapters included are: Fruit physiology after harvest (pp. 1-36, 118 ref.); Modern harvest methods (pp. 37-63, 67 ref.); The packing house (pp. 64-86, 68 ref.); Quality measurement, grading and inspection (pp. 87-130, many ref.); Containers for shipment (pp. 131-153, 44 ref.); Packages for the consumer (pp. 154-177, 31 ref.); Origin, characteristics and requirements of deciduous tree fruits (pp. 178-224, 109 ref.); Origins, characteristics and requirements of grapes and other small fruits (pp. 225-241, 35 ref.); Origins, characteristics and requirements of subtropical fruits (pp. 242-268, 81 ref.); Origins, characteristics and requirements of tree nuts (pp. 269-291, 55 ref.); Treatments before shipment or storage (pp. 292-321, 90 ref.); Conventional refrigerated storage (pp. 322-339, 25 ref.); [Continued in following abstr.] VJG

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Handling, transportation and storage of fruits and vegetables. Vol. 2. Fruits and tree nuts. [Book]

Ryall, A. L.; Pentzer, W. T.

xi + 545pp. ISBN 0-87055-165-5 (1974) [many ref. En] Westport, Connecticut, USA; AVI Publishing Co., Inc. Price \$34 (US) \$35 (Foreign)

[Continued from preceding abstr.] Controlled atmosphere storage of apples and pears (pp. 340-360, 49 ref.); Transportation by rail and highway (pp. 361-391, 74 ref.); Transportation by air and sea (pp. 392-416, 39 ref.); Diseases and injuries of deciduous-tree fruits during marketing (pp. 417-464, 129 ref.); Diseases and injuries of small fruits during marketing (pp. 465-489, 67 ref.); and Diseases and injuries of subtropical fruits during marketing (pp. 490-516, 70 ref.). An appendix includes the following sections: Conversion factors and equivalents; Calculation of refrigeration requirements for cooling and storing apples; Capacity and net wt. of containers for fresh fruits; Grade standards for Bartlett pears; Sources of information on handling, transportation and storage of horticultural products; Partial list of research institutions for food preservation in countries other than the US; and a glossary of terms. VJG

195

Potassium in tropical crops and soils. Proceedings of the 10th Colloquium of the International Potash Institute held in December, 1973, in Abidjan/Republic of Ivory Coast. [Conference proceedings]

International Potash Institute

603pp. (1974) [many ref. En, Fr] CH-3048

Berne-Worblaufen, Switzerland

4 Colloquium papers are abstracted separately and indexed additionally under International Potash Institute [Symposium]. VJG

196

Annual report 1973. [Book]

Sprenger Instituut

56pp. (1973) [38 ref. En] Wageningen, Netherlands; Institute for Research on Storage & Processing of Horticultural Produce

This annual report gives a short survey of current research carried out at the institute on the quality, processing, packing and transport, economics and statistics of storage, and chemistry of fruit and vegetables. VJG

SUGARS & STARCHES

197

Silesia Confiserie Manual No. 2. Special handbook for dragee production. [Book]

Stock, K.-W.; Meiners, A.

504pp. (1973) [many ref. En] Norf, Federal Republic of Germany; Silesia-Essenzfabrik Gerhard Hanke KG Price DM 47.80

The first manual [see FSTA (1970) 2 3L146] dealt with sugar confectionery in general, whereas this second publication concentrates on the production of dragees (panned goods). The first section contains: tables (e.g. temp. conversion table, °Brix/°Baume conversion table, average analyses of glucose syrups, English/metric conversion tables for weight and volume); 232 illustrations, with explanatory notes, of equipment used in dragee production and packaging, various types of dragee, and packages used for dragees; and a supplement to the bibliography given in the first manual. The second section contains 3 parts: confectionery dragees (pp. 335-442); pharmaceutical dragees (pp. 443-474); and raw materials and adjuvants (pp. 475-482). Topics covered in the section on confectionery dragees are: the setting up of a panning (dragee) section, dragee fillings, solutions and masses for panning, pre-treatment of the fillings for panning, the panning process, panning methods, the colouring and flavouring of dragees, the glazing of dragees, various specialities, packing and storage of dragees, and utilization of scrap. French, German and Spanish editions of this manual are also available. JA

198

Molecular structure and function of food carbohydrate. [Book]

Birch, G. G.; Green, L. F. (Editors)

xi+308pp. ISBN 0-85334-582-1 (1973) [many

ref. En] Barking, Essex, UK; Applied Science Publishers Ltd. Price £10 [Nat. Coll. of Food Tech., Reading Univ., Weybridge, Surrey, UK]

Papers presented at a symposium organized by the National College of Food Technology, University of Reading, on 10-11 April, 1973 were: Configuration, conformation and the properties of food sugars, by G. G. Birch & R. S. Shallenberger (pp. 9-18, 15 ref.); The role of carbohydrate in non-enzymic browning, by D. J. McWeeny (pp. 21-31, 21 ref.); Sucrochemistry, by R. Khan (pp. 33-49, 40 ref.); New speciality glucose syrups, by G. B. Madsen & B. E. Norman (pp. 50-63, 4 ref.); Fructose, by G. L. S. Pawan (pp. 65-78, 96 ref.); Honey, by D. G. Steyn (pp. 81-106, 67 ref.); Biological specificity of L-xyloascorbic acid, (vitamin C); by R. E. Hughes (pp. 108-123, 33 ref.); Polysaccharide conformation as a basis of food structure, by E. R. Morris (pp. 125-131); Thermal degradation of carbohydrates, by Y. Houminer (pp. 133-153, 44 ref.); Lactose and reverse osmosis, by R. A. M. Delaney, J. K. Donnelly & A. C. O'Sullivan (pp. 155-175, 8 ref.); The structure of starch, by W. Banks, C. T. Greenwood & D. D. Muir (pp. 177-193, 40 ref.); The molecular basis of starch technology in new food products, by G. G. Birch, J. G. Brennan, R. J. Priestley & G. Sodah-Ayernor (pp. 195-207, 14 ref.) [Continued in following abstr.] VJG

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Molecular structure and function of food carbohydrate. [Book]

Birch, G. G.; Green, L. F. (Editors)

xi+308pp. ISBN 0-85334-582-1 (1973) [many ref. En] Barking, Essex, UK; Applied Science Publishers Ltd. Price £10 [Nat. Coll. of Food Tech., Reading Univ., Weybridge, Surrey, UK] [Continued from preceding abstr.]

The starch sugar transformation in potato tubers during drying and cooling by G. Lisinska (pp. 208-215, 13 ref.); The structural basis of carbohydrate digestion and absorption, by J. E. G. Barnett (pp. 216-233, 35 ref.); Carbohydrates and human performance, by J. D. Brooke (pp. 235-261, 88 ref.); Carbohydrate intolerance, by H. B. McMichael (pp. 264-272, 40 ref.); and Indigestible constituents of cereals and other foodstuffs, by N. Fisher (pp. 275-291, 73 ref.). VJG

200

[Sugar plant production schemes.] Cukrovarnicka vyrobní schemata. [Book]

Hrubisek, J.; Urban V.

384pp. (1974) [19 ref. Cs] Prague, Czechoslovakia; SNTL. Price 30Kcs

This book includes tables containing the data necessary for massecuites boiling in relation to the operation of modern highly efficient machines and equipment. The following chapters are also included: Processing lines at beet sugar plants (pp. 18-40); Calculation of line requirements for

beet sugar plants (pp. 41-81); Tables of production lines for beet sugar plants (pp. 82-197); Calculation of complete production schemes (pp. 198-203); Processing lines at cane sugar plants (pp. 204-208); Calculation of line requirements for cane sugar plants (pp. 209-219); Tables of processing lines for cane sugar plants (pp. 220-330); Examples of calculation of complete production schemes (pp. 331-347); and Auxiliary tables (pp. 348-377). STI

201

[Carbohydrates in confectionery production.] Uglevody v konditerskom proizvodstve. [Book] Nikiforova, V. N. 72pp. (1974) [many ref. Ru] Moscow, USSR; Pishchevaya Promyshlennost' Price 0.25r

This book contains the following chapters: Characteristics of carbohydrates contained in confectionery products (pp. 4-14); Carbohydrates hydrolysis products (pp. 14-19); Water solubility of carbohydrates and their crystallization (pp. 20-26); Carbohydrates hydrolysis and their identification (pp. 26-40); Hydrogen bonds and sweetness of sugars (pp. 41-43); and Role of carbohydrates in confectionery products manufacture (pp. 44-70). STI

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Molecular structure and function of food carbohydrate. [Conference proceedings] Birch, G. G.; Green, L. F. (Editors) xi+308pp. ISBN 0-85334-582-1 (1973) [many ref. En] London, UK; Applied Science Publishers Ltd. Price £10

The full text is given of papers presented at this symposium (held at the National College of Food Technology, Weybridge, Surrey, UK, 10-11 April 1973), including the following: Configuration, conformation and the properties of food sugars, by G. G. Birch & R. S. Shallenberger (pp. 9-18, 15 ref.); The role of carbohydrate in non-enzymic browning, by D. J. McWeeny (pp. 21-31, 21 ref.); Sucrochemistry, by R. Khan (pp. 33-49, 40 ref.); New speciality glucose syrups, by G. B. Madsen & B. E. Norman (pp. 50-63, 4 ref.); Fructose, by G. L. S. Pawan (pp. 65-78, 96 ref.); Honey, by D. G. Steyn (pp. 81-106, 67 ref.); Polysaccharide conformation as a basis of food structure, by E. R. Morris (pp. 125-131); Thermal degradation of carbohydrates, by Y. Houminer (pp. 133-153, 44 ref.); Lactose and reverse osmosis, by R. A. M. Delaney, J. K. Donnelly & A. C. O'Sullivan (pp. 155-175, 8 ref.); The structure of starch, by W. Banks, C. T. Greenwood & D. D. Muir (pp. 177-193, 40 ref.); The molecular basis of starch technology in new food products, by G. G. Birch, J. G. Brennan, R. J. Priestley & G. Sodah-Ayemnor (pp. 195-207, 14 ref.); The starch-sugar transformation in potato tubers during drying and cooling, by G. Lisinska (pp. 208-215, 13 ref.); Carbohydrate intolerance, by H. B. McMichael (pp. 264-272, 40 ref.); and Indigestible constituents of cereals and other foodstuffs, by N. Fisher (pp. 275-291, 73 ref.). AJDW

203

[New information on sugar crystallization kinetics.] Novoe v kinetike kristallizatsii sakhara. [Book] Zubchenko, A. V.

158pp. (1973) [107 ref. Ru] Moscow, USSR; Pishchevaya Promyshlennost'. Price 0.84r

Methods for determination of the rate of formation of sucrose crystallization nuclei are presented in this book. The following chapters are included: Principles of the fluctuation theory of crystal nucleus formation (pp. 6-46); Sucrose crystallization nuclei formation (pp. 47-92); Temp. effect on sucrose crystallization kinetics (pp. 93-123); and Crystallization kinetics equations (pp. 124-152). STI

204

Sugar chemistry. [Book]

Shallenberger, R. S.; Birch, G. G. xiii+221pp. ISBN 0-87055-166-3 (1975) [many ref. En] Westport, Connecticut, USA; AVI Publishing Co. Inc. Price \$21 (US) \$22 (Foreign) [New York St. Agric. Expt. Sta., Cornell Univ., Geneva, New York, USA]

This book is written primarily for those persons interested in the chemistry of the sugars with direction toward their use in foods. Chapters included are: Introduction to the intrinsic chemistry of sugars (pp. 1-16, 33 ref.); Structure of monosaccharides (pp. 17-45, 33 ref.); Occurrence and properties of sugars (pp. 46-88, 43 ref.); Intrinsic chemical reactions of sugars (pp. 89-112, 56 ref.); Nutritional and metabolic aspects of sugars (pp. 113-146, 61 ref.); Role of sugars in food and medicine (pp. 147-168, 46 ref.); Nonenzymic browning reactions (pp. 169-193, 46 ref.); and Enzymic hydrolysis of oligosaccharides and fermentation (pp. 194-205, 25 ref.). VJG

CEREALS & BAKERY PRODUCTS

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Drying cereal grains. [Book]

Brooker, D. B.; Bakker-Arkema, F. W.; Hall, C. W.

vi+265pp. ISBN 0 87055 161 2 (1974) [many ref. En] Westport, Connecticut, USA; AVI Publishing Co. Inc. Price \$23.00(US) \$24.00(Foreign) [Dept. of Agric. Eng., Univ. of Missouri, Columbia, USA]

This book is an effort to present updated basic information on the methodology and theory of grain drying and conditioning. The major emphasis is on shelled corn; only a few aspects of rice drying are covered. The principles presented can, however, be used to analyse the drying processes of many field-grown farm commodities. Chapters in the book are: Principles of grain drying (pp. 1-23, 23 ref.); Moist air properties (pp. 24-48, 15 ref.); Grain quality deterioration (pp. 49-68, 18 ref.); Grain storage (pp. 69-88, 18 ref.); Grain processing (pp. 89-108, 18 ref.); Grain marketing (pp. 109-128, 18 ref.); Grain quality control (pp. 129-148, 18 ref.); Grain quality improvement (pp. 149-168, 18 ref.); Grain quality deterioration (pp. 169-188, 18 ref.); Grain quality control (pp. 189-208, 18 ref.); Grain quality improvement (pp. 209-228, 18 ref.); Grain quality deterioration (pp. 229-248, 18 ref.); Grain quality control (pp. 249-268, 18 ref.); Grain quality improvement (pp. 269-288, 18 ref.); Grain quality deterioration (pp. 289-308, 18 ref.); Grain quality control (pp. 309-328, 18 ref.); Grain quality improvement (pp. 329-348, 18 ref.); Grain quality deterioration (pp. 349-368, 18 ref.); Grain quality control (pp. 369-388, 18 ref.); Grain quality improvement (pp. 389-408, 18 ref.); Grain quality deterioration (pp. 409-428, 18 ref.); Grain quality control (pp. 429-448, 18 ref.); Grain quality improvement (pp. 449-468, 18 ref.); Grain quality deterioration (pp. 469-488, 18 ref.); Grain quality control (pp. 489-508, 18 ref.); Grain quality improvement (pp. 509-528, 18 ref.); Grain quality deterioration (pp. 529-548, 18 ref.); Grain quality control (pp. 549-568, 18 ref.); Grain quality improvement (pp. 569-588, 18 ref.); Grain quality deterioration (pp. 589-608, 18 ref.); Grain quality control (pp. 609-628, 18 ref.); Grain quality improvement (pp. 629-648, 18 ref.); Grain quality deterioration (pp. 649-668, 18 ref.); Grain quality control (pp. 669-688, 18 ref.); Grain quality improvement (pp. 689-708, 18 ref.); Grain quality deterioration (pp. 709-728, 18 ref.); Grain quality control (pp. 729-748, 18 ref.); Grain quality improvement (pp. 749-768, 18 ref.); Grain quality deterioration (pp. 769-788, 18 ref.); Grain quality control (pp. 789-808, 18 ref.); Grain quality improvement (pp. 809-828, 18 ref.); Grain quality deterioration (pp. 829-848, 18 ref.); Grain quality control (pp. 849-868, 18 ref.); Grain quality improvement (pp. 869-888, 18 ref.); Grain quality deterioration (pp. 889-908, 18 ref.); Grain quality control (pp. 909-928, 18 ref.); Grain quality improvement (pp. 929-948, 18 ref.); Grain quality deterioration (pp. 949-968, 18 ref.); Grain quality control (pp. 969-988, 18 ref.); Grain quality improvement (pp. 989-1008, 18 ref.); Grain quality deterioration (pp. 1009-1028, 18 ref.); Grain quality control (pp. 1029-1048, 18 ref.); Grain quality improvement (pp. 1049-1068, 18 ref.); Grain quality deterioration (pp. 1069-1088, 18 ref.); Grain quality control (pp. 1089-1108, 18 ref.); Grain quality improvement (pp. 1109-1128, 18 ref.); Grain quality deterioration (pp. 1129-1148, 18 ref.); Grain quality control (pp. 1149-1168, 18 ref.); Grain quality improvement (pp. 1169-1188, 18 ref.); Grain quality deterioration (pp. 1189-1208, 18 ref.); Grain quality control (pp. 1209-1228, 18 ref.); Grain quality improvement (pp. 1229-1248, 18 ref.); Grain quality deterioration (pp. 1249-1268, 18 ref.); Grain quality control (pp. 1269-1288, 18 ref.); Grain quality improvement (pp. 1289-1308, 18 ref.); Grain quality deterioration (pp. 1309-1328, 18 ref.); Grain quality control (pp. 1329-1348, 18 ref.); Grain quality improvement (pp. 1349-1368, 18 ref.); Grain quality deterioration (pp. 1369-1388, 18 ref.); Grain quality control (pp. 1389-1408, 18 ref.); Grain quality improvement (pp. 1409-1428, 18 ref.); Grain quality deterioration (pp. 1429-1448, 18 ref.); Grain quality control (pp. 1449-1468, 18 ref.); Grain quality improvement (pp. 1469-1488, 18 ref.); Grain quality deterioration (pp. 1489-1508, 18 ref.); Grain quality control (pp. 1509-1528, 18 ref.); Grain quality improvement (pp. 1529-1548, 18 ref.); Grain quality deterioration (pp. 1549-1568, 18 ref.); Grain quality control (pp. 1569-1588, 18 ref.); Grain quality improvement (pp. 1589-1608, 18 ref.); Grain quality deterioration (pp. 1609-1628, 18 ref.); Grain quality control (pp. 1629-1648, 18 ref.); 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Grain equilibrium moisture content (pp. 69-87, 39 ref.); Air movement (pp. 88-129, 24 ref.); Introductory analysis of fixed bed drying systems (pp. 130-143, 7 ref.); Grain drying systems (pp. 144-184, 20 ref.); Theory and simulation of cereal grain drying (pp. 185-221, 32 ref.); and Controls for dryer operation and safety (pp. 222-234, 3 ref.). The following appendices are included: Miscellaneous tables (pp. 235-246); Method to determine air flow in field installations (pp. 247-248); Conversion data (pp. 249-251); Mathematical models concerning psychrometrics and shelled corn drying (pp. 252-256); and Wet-bulb temperatures and depressions (pp. 257-259). A 19 ref. bibliography and index are included. JA

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Baking science and technology. Vol. 1. [Book] Pyler, E. J.

2nd edition xviii + 585pp. (1973) [many ref. En] Chicago, Illinois, USA; Siebel Publishing Co. Price \$35 for Vol. 1 and 2

This 2nd edition of the book, first published in 1952, has aimed to incorporate all the major advances in baking science and all significant innovations in production technology into an integrated text. The result is an essentially new work in which only the basic organization of the earlier edition has been retained. Volume 1 contains 2 sections: Basic science (pp. 1-285) and Materials of baking (pp. 286-585), made up of the following chapters: The carbohydrates (pp. 3-44, 38 ref.); Fats and oils (pp. 45-82, 31 ref.); The proteins (pp. 83-119, 47 ref.); Enzymes (pp. 120-170, 92 ref.); Yeasts, molds and bacteria (pp. 171-222, 58 ref.); aspects of physical chemistry (pp. 223-285, 82 ref.); Wheat flour (pp. 286-366, 112 ref.); Miscellaneous flours (pp. 367-395, 55 ref.); Sweetening agents (pp. 396-434, 42 ref.); Shortening products (pp. 435-486, 74 ref.); Milk and milk products (pp. 487-513, 36 ref.); Eggs and egg products (pp. 514-545, 44 ref.); and Water (pp. 546-585, 52 ref.). JA

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Baking science and technology. Vol. 2. [Book] Pyler, E. J.

2nd edition xiii + 655pp. (1973) [many ref. En] Chicago, Illinois, USA; Siebel Publishing Co. Price \$35 for Vol. 1 and 2

Sections in this second volume are: Baking technology (pp. 586-897); Aspects of cake baking (pp. 898-1038); and Bakery equipment (pp. 1039-1217), containing the following chapters: The mixing process (pp. 586-618, 41 ref.); Dough fermentation (pp. 619-650, 34 ref.); Dough make-up (pp. 651-681, 23 ref.); The newer technologies of doughmaking (pp. 682-746, 92 ref.); The baking process (pp. 747-777, 32 ref.); Rye bread and other bread varieties (pp. 778-803); Keeping properties of bread (pp. 804-833, 85 ref.); Physical and chemical testing methods (pp. 834-897, 57 ref.);

Cake ingredients (pp. 898-939, 59 ref.); Flavor products (pp. 940-965, 34 ref.); Cake baking technology (pp. 966-1002, 46 ref.); Miscellaneous bakery products (pp. 1003-1038, 49 ref.); Ingredient handling equipment (pp. 1039-1062, 13 ref.); Dough processing equipment (pp. 1063-1117, 27 ref.); Oven equipment (pp. 1118-1144, 16 ref.); Baked product handling equipment (pp. 1145-1172, 22 ref.); and Bakery sanitation, by P. T. McDonald (pp. 1173-1217, 4 ref.). An appendix (pp. 1218-1227) gives definitions and standards for bakery products under the Federal Food, Drug and Cosmetic Act. JA

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[Starch in dough and bread production.] Die Stärke bei der Teig- und Brotherstellung. [Book] Kosmina, N. P.

93pp. ISBN 3 489 738 144 (1974) [many ref. De] Berlin (West); Paul Parey Price DM 42

This monograph, number V-4 in the series 'Starch Handbook in Individual Monographs' includes the following chapters: Starch in grain and flour (pp. 7-12); Starch characteristics of significance for the baking process (pp. 12-30); Mechanically-damaged starch (pp. 30-38); Starch in the dough preparation process (pp. 38-51); Starch and amylolytic enzymes in sprouted grain (pp. 51-60); and Staling of bread (pp. 61-78). A 10-page bibliography is included. AJDW

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[Modern techniques in the large- and small-scale biscuit factory and patisserie-bakery and their products. Vol. 2.] Techniques modernes de la biscuiterie patisserie-boulangerie industrielles et artisanales et des produits de regime. Tome 2. [Book]

Kiger, J. L.; Kiger, J. G. xii + lii + 595pp. (1968) [21 ref. Fr] Paris, France; Dunod [Lab. Sandoz-France, Orleans, France]

This book consists of the following 3 sections, each containing several chapters: General principles of manufacture (pp. 1-227); Recipes (pp. 229-434); and Control of manufacture and analyses (pp. 435-582). Individual chapters are: Reception and preparation of raw materials (pp. 7-16); Mixing of raw materials (pp. 17-71); Division and panning of dough (pp. 72-110); Baking, ovens and depanning (pp. 111-151); Refrigeration, staling, slicing and trimming (pp. 152-167); Packaging and conditioning (pp. 168-208); Problems of hygiene (pp. 209-221); Problems of safety (pp. 222-227); Dry biscuits from strong or stiff doughs - English biscuits (pp. 233-252); Biscuits from semi-stiff or soft doughs (pp. 253-254); Bakery products containing almond paste (pp. 255-273); Bakery products containing cocoa or dried fruit (pp. 274-276); Bakery products from dough containing eggs (pp. 277-316); Products from liquid dough - wafer biscuits, waffles and pancakes (pp. 317-337); Spiced bread (pp. 338-346); Speciality biscuits (pp. 347-352); Large- and small-scale bakeries (pp. 353-396); Normal and dietetic products (pp. 397-426); [continued in following abstr.] JA

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[Modern techniques in the large- and small-scale biscuit factory and patisserie-bakery and their products. Vol. 2.] Techniques modernes de la biscuiterie patisserie-boulangerie industrielles et artisanales et des produits de regime. Tome 2. [Book]

Kiger, J. L.; Kiger, J. G.
xii + Lii + 595pp. (1968) [21 ref. Fr] Paris, France; Dunod [Lab. Sandoz-France, Orleans, France]

[Continued from preceding abstr.] Powders for flans and desserts (custard powder) (pp. 427-431); Special products (pp. 432-434); Factory laboratories and controls (pp. 439-446); Organoleptic characteristics (sensory evaluation) (pp. 447-467); Mechanical and physico-mechanical properties (pp. 468-478); Control of stability (pp. 479-484); Examination by microscopy and by Wood's light method (pp. 485-503); Control of hygiene (pp. 504-520); and Chemical analyses (pp. 521-582). JA

211

Wheat: production and utilization. [Book]

Inglett, G. E. (Editor)
ix + 500pp. ISBN 0-87055-154-X (1974) [many ref. En] Westport, Connecticut, USA; AVI Publishing Co. Inc. Price \$25 (US), \$26 (Foreign) [Cereal Properties Lab., Northern Regional Res. Lab., USDA, Peoria, Illinois, USA]

This book, intended to be a source for all pertinent information on wheat, gives particular emphasis to areas of current interest and technological progress. The chapters, which have been contributed by various authors, give a broad coverage of the many subjects and disciplines concerned with the production and utilization of wheat. Chapters are: Wheat in perspective, by G. E. Inglett (pp. 1-7, 12 ref.); Breeding and genetics, by J. W. Schmidt (pp. 8-30, 43 ref.); Production, by C. A. Moore (pp. 31-51, 22 ref.); Harvest, handling, and storage by W. E. Splinter (pp. 52-71, 40 ref.); Marketing, by C. A. Moore (pp. 72-92, 19 ref.); Quality, by K. A. Gilles & L. D. Sibbitt (pp. 93-107, 28 ref.); Kernel structure and composition, by G. E. Inglett (pp. 108-118, 19 ref.); Proteins: composition, structure, and function, by W. Bushuk & C. W. Wrigley (pp. 119-145, 97 ref.); Carbohydrate composition of wheat, by J. Cerning & A. Guilbot (pp. 146-185, many ref.); Flour milling, by G. E. Inglett & R. A. Anderson (pp. 186-198, 24 ref.); Baking industry, by R. H. Cotton & J. G. Ponte, Jr. (pp. 199-332, many ref.); Macaroni products, by D. E. Walsh & K. A. Gilles (pp. 333-354, 12 ref.); [continued in following abstr.]. JA

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Wheat: production and utilization. [Book]

Inglett, G. E. (Editor)
ix + 500pp. ISBN 0-87055-154-X (1974) [many ref. En] Westport, Connecticut, USA; AVI

Publishing Co. Inc. Price \$25 (US), \$26 (Foreign) [Cereal Properties Lab., Northern Regional Res. Lab., USDA, Peoria, Illinois, USA]

[Continued from preceding abstr.] Wet processing of wheat flour, by R. A. Anderson (pp. 355-365, 42 ref.); Enrichment of wheat food products, by B. Borenstein (pp. 366-383, 33 ref.); Feed uses of wheat and its products, by R. M. Saunders, H. G. Walker, Jr. & G. O. Kohler (pp. 384-397, 40 ref.); Industrial uses of wheat and flour, by D. L. Miller (pp. 398-411, 5 ref.); Distribution and utilization of U.S. wheat, by K. R. Majors (pp. 412-463, 51 ref.); and U.S. wheat products in world feeding programs, by D. A. Fellers (pp. 464-483, 17 ref.). An appendix (pp. 484-492) lists the Official Grain Standards of the United States for Wheat. JA

213

[The effect of heat and moisture on grain processing and storage.] Vliyanie tepla i vlazi na protsessy pererabotki i khraneniya zerna. [Book]

Egorov, G. A.
264pp. (1973) [243 ref. Ru] Moscow, USSR; Izdatel'stvo 'Kolos' Price 0.84r

This book contains the following chapters: Technological significance of the structure, microstructure and chemical composition of grain (pp. 7-29); Moisture sorption properties of grain (pp. 30-50); Thermodynamic interactions between grain and water (pp. 57-71); Heat and moisture transfer processes in grain (pp. 72-99); Electrophysical properties of grain (pp. 100-106); Effect of heat and moisture transfer on physico-chemical properties of grain (pp. 107-135); Effect of heat and moisture transfer on structural and mechanical properties of grain (pp. 136-151); Kinetics of heat and moisture transfer in grain (pp. 152-178); Effect of heat and moisture transfer on biochemical properties of grain (pp. 179-187); Effect of internal heat and moisture transfer on technological properties of grain (pp. 188-223); Design characteristics of machinery and equipment for drying and hydrothermal processing of grain (pp. 224-228); Problems of controlling technological properties of grain during hydrothermal processing (pp. 229-232); and Economic effectiveness of hydrothermal processing of grain in mills (pp. 233-244). HBr

214

[Handbook for millers and manufacturers of groats and feedingstuffs.] Spravochnik mukomola, krupyanshchika, kombikormshchika. [Book]
Bardyshev, G. M.; Zamyatin, S. S.; Kulak, V. G.; Feingersh, A. Ya.; Fedyaev, V. I.; Khabe, L. I.
335pp. (1973) [Ru] Moscow, USSR; "Kolos". Price 1.91r

Practical information necessary for those engaged in flour milling, groats processing and feedingstuff manufacturing are dealt with. The following chapters are included: General information (pp. 3-35); Equipment (pp. 36-156);

Flour milling plants (pp. 157-191); Groats processing plants (pp. 192-246); Feedingstuff processing plants (pp. 247-310); and Technical characteristics (pp. 311-333). STI

215

Triticale. Proceedings of an international symposium, El Batan, Mexico, 1-3 October, 1973. [Conference proceedings]
MacIntyre, R.; Campbell, M. (Mexico, Centro Internacional de Mejoramiento de Maiz y Trigo; Canada, University of Manitoba) (Editors)
International Development Research Centre Monographs IDRC-024e 250pp. ISBN 0-088936-028-6 (1974) [many ref. En, fr] Ottawa, Canada; International Development Research Centre. Price \$5.00

Papers presented at the symposium on 'Triticale', which was co-sponsored by the Centro Internacional de Mejoramiento de Maiz y Trigo, the University of Manitoba and the International Development Research Centre, were: Historical review of the development of triticale, by A. Müntzing. (pp. 13-30, 71 ref.); Development of triticales in Western Europe, by E. Sanchez-Monge (pp. 31-39, 40 ref.); Triticale-breeding experiments in Eastern Europe, by A. Kiss (pp. 41-50, 13 ref.); Research work with 4x-triticale in Germany (Berlin), by K.-D. Krolow. (pp. 51-60, 6 ref.); Triticale research programme in the United Kingdom, by R. S. Gregory (pp. 61-67, 15 ref.); Progress in the development of triticale in Canada, by E. N. Larter (pp. 69-74, 7 ref.); Triticale: its potential as a cereal crop in the United States of America, by R. J. Metzger (pp. 75-80, 2 ref.); The triticale improvement programme at CIMMYT, by F. J. Zillinsky (pp. 81-85); Prospects of triticale as a commercial crop in India, by J. P. Srivastava (pp. 87-92, 1 ref.); Triticale breeding experiments in India, by N. S. Sisodia (pp. 93-101, 7 ref.); Triticale research programme in Iran, by M. A. Vahabian (pp. 103-105); [Continued in following abstr.] VJG

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Triticale. Proceedings of an international symposium, El Batan, Mexico, 1-3 October, 1973. [Conference proceedings]
MacIntyre, R.; Campbell, M. (Mexico, Centro Internacional de Mejoramiento de Maiz y Trigo; Canada, University of Manitoba) (Editors)
International Development Research Centre Monographs IDRC-024e, 250pp. ISBN 0-088936-028-6 (1974) [many ref. En, fr] Ottawa, Canada; International Development Research Centre. Price \$5.00

[Continued from preceding abstr.] Triticale research programme in Ethiopia, by F. Pinto (pp. 107-115); Triticale research programme in Algeria, by H. Floyd (pp. 117-119); Triticale programme and potential in Kenya, by B. A. N. Wabwoto (pp. 121-124, 5 ref.); Triticale breeding in Chile by P. C.

Parodi (pp. 125-128, 2 ref.); Expanding the CIMMYT outreach programmes, by R. G. Anderson (pp. 129-135); Meiotic, gametophytic, and early endosperm development in triticale, by M. D. Bennett (pp. 137-148, 21 ref.); Metabolic factors influencing kernel development in triticale, by R. D. Hill, A. J. Klassen & W. Dedio (pp. 149-154, 10 ref.); Improving seed formation in triticales, by F. J. Zillinsky (pp. 155-157); Univalency in triticale, by P. J. Kaltsikes (pp. 159-167, 50 ref.); Cytogenetics of hexaploid triticale, by A. Merker (pp. 169-172, 4 ref.); Use of chromosome analysis to detect favourable combinations from octoploid × hexaploid crosses, by M. H. de Sosa (pp. 173-180); Preliminary report on the cytogenetics of tetraploid × diploid wheat crosses, by R. J. Metzger & B. A. Silbaugh (pp. 181-185, 4 ref.); Triticale diseases review, by S. Fuentes Fuentes (pp. 187-192, 12 ref.); Triticale diseases in CIMMYT trial locations, by M. J. Richardson & J. M. Waller (pp. 193-199, 7 ref.); [Continued in following abstr.] VJG

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Triticale. Proceedings of an international symposium, El Batan, Mexico, 1-3 October, 1973. [Conference proceedings]
MacIntyre, R.; Campbell, M. (Mexico, Centro Internacional de Mejoramiento de Maiz y Trigo; Canada, University of Manitoba) (Editors)
International Development Research Centre Monographs IDRC-024e, 250pp. ISBN 0-088936-028-6 (1974) [many ref. En, fr] Ottawa, Canada; International Development Research Centre. Price \$5.00

[Continued from preceding abstr.] Agronomy and physiology of triticales, by R. A. Fischer (pp. 201-209, 6 ref.); Early steps on triticale breeding at CIMMYT, by M. A. Quinones (pp. 211-212); Introduction of new forms and types from wheat and triticale, by R. Rodriguez (pp. 213-215); Extending adaptability and sources of new genetic variability in triticale, by M. M. Kohli (pp. 217-226, 4 ref.); Production of triticale germ plasm, by J. P. Gustafson (pp. 227-233, 21 ref.); Broadening of the triticale germ plasm base by primary hexaploid triticale production, by A. Campos Vela (pp. 235-236); Nutritional value of triticales as high-protein feed for poultry, by J. McGinnis (pp. 237-240); Comparison of the vole, rat, and mouse as assay animals in the evaluation of protein quality, by B. E. McDonald & E. N. Larter (pp. 241-246, 7 ref.); and Future role of triticales in agriculture, by L. H. Shebeski (pp. 247-250). VJG

218

[The nutritive value of bakery products.]
Pishchevaya tsennost' khlebo-bulochnykh izdelii.
[Book]

Danilova, E. N.; Tsurkova, K. E.
80pp. (1973) [Ru] Moscow, USSR; Pishchevaya Promyshlennost'. Price 0.13r

The importance of bread and bakery products in human nutrition is discussed, including the nutrition

of children and invalids. Subjects covered include: nutritive value of bread; ways of increasing the nutritive value of bread; some kinds of bread and bakery goods and their nutritive value; bread and bakery products for dietetic and special purposes; and storage of bread in the home. STI

219

Bread. An assessment of the bread industry in Britain. [Book]

United Kingdom, Technology Assessment Consumerism Centre

89pp. ISBN 0-904341-00-3 (1974) [many ref. En] Kettering, UK; Intermediate Publishing Ltd. Price £1.25

This study of the bread industry, written for consumers, summarizes the findings of a team of scientists, lawyers and economists made during extensive research in 1972-1973, sponsored by the Technology Assessment Consumerism Centre which is based at Manchester University. Chapters in the book are: Survival and technological bread (pp. 9-12, 2 ref.), which considers the importance of bread as a food; Eating the wheat grain (pp. 13-18, 6 ref.); The way to the modern white loaf (pp. 19-28, 16 ref.); Brown vs. white: the colour-nutrient dilemma (pp. 29-39, 21 ref.); Fibre: the neglected nutrient (pp. 40-48, 16 ref.); More skeletons in the bread bin (pp. 49-58, 29 ref.), which discusses the relationship between bread consumption and disease, e.g. tooth decay, cancer of the colon; Selling us the staff of life (pp. 59-71, 38 ref.); Buying bread (pp. 72-76, 8 ref.); and Proposals for a better British loaf (pp. 77-81). JA

220

The wheat plant. [Book]

Percival, J.

x+463pp. ISBN 0-7156-0790-1 (1974) [many ref. En] London, UK; Duckworth & Co. Ltd. Price £28.00

This book is a facsimile edition of the original version, published in 1921, and regarded as a classic monograph on the subject. The whole original text and illustrations are reproduced. The book contains 2 parts; the first (pp. 1-143) describes the morphology, anatomy, growth and development of the wheat plant, and the second (pp. 145-432) discusses the taxonomy and characters of wild species and their relationships to cultivated forms. An alphabetical list of named wheats (pp. 433-440) and a bibliography (pp. 441-453) are included. Chapters in the first part are: Introductory (pp. 3-6); The grain: structure, colour, and other characters (pp. 7-23); Germination of the grain (pp. 24-34); The roots (pp. 35-43); The leaves (pp. 44-61); The stems: "tillering", "shooting", and "lodging" (pp. 62-99); The inflorescence (pp. 100-109); and The flower: fertilisation and development of the grain (pp. 110-143). Except where otherwise stated, the various measurements and illustrations in the first part refer to the ordinary dense-eared type of bread wheat (*Triticum vulgare*) commonly grown in Great Britain. JA

221

Storage of cereal grains and their products. [Book]

Christensen, C. M. (Editor)

Ed. 2, 549pp. ISBN 0-913250-05-8 (1974) [many ref. En] St. Paul, Minnesota, USA; American Association of Cereal Chemists Inc. Price \$25.00 (AACC members), \$29.50 (non-members) [Univ. of Minnesota, St. Paul, Minnesota, USA]

This second edition (first edition published in 1954) has been revised to include new developments and advances in basic knowledge and in practical technology. The contents deal primarily with cereal grains and their products, but many of the principles, practices and concepts apply equally well to the storage and handling of many other raw and processed materials. The book constitutes Vol. V (revised) of the Monograph Series of the American Association of Cereal Chemists. Contents are: Moisture - its significance, behaviour, and measurement, by W. H. Hunt & S. W. Pixton (pp. 1-55, many ref.); Biochemical, functional, and nutritive changes during storage, by Y. Pomeranz (pp. 56-114, many ref.); Sampling, inspection, and grading of grain, by G. R. Bauwin & H. L. Ryan (pp. 115-157, 26 ref.); Microflora, by C. M. Christensen & H. H. Kaufmann (pp. 158-192, 110 ref.); Insects, by R. T. Cotton & D. A. Wilbur (pp. 193-231, 84 ref.); Chemical control of stored-grain insects and associated micro- and macro-organisms, by P. K. Harein & E. de las Casas (pp. 232-291, many ref.); Rodents, by K. L. Harris (pp. 292-332, 97 ref.); Whole grain storage, by J. E. Bailey (pp. 333-360, 6 ref.); Bulk storage of flour, by D. E. Schaetzel (pp. 361-382); Airtight storage, by M. B. Hyde (pp. 383-419, 110 ref.); Chilling, by N. J. Burrell (pp. 420-453, 94 ref.); Aeration, by N. J. Burrell (pp. 454-480, 54 ref.); Grain drying, by W. V. Hukill (pp. 481-508, 22 ref.); and Packaging of cereal products, by C. A. Southwick, Jr. (pp. 509-539, 17 ref.). JA

222

Grain drying and storage.

United Kingdom, Electricity Council

Farmelectric Handbook No. 21, iv+124pp.

(1974) [En] [Farm-electric Centre, Nat. Agric. Centre, Kenilworth, CV8 2LS, UK]

This interesting handbook covers the important factors which must be controlled if grain is to be stored satisfactorily, and will be of assistance to those involved with choosing a grain storage system. It contains the following chapters: General considerations (pp. 1-10); Types of grain drier (pp. 11-13); Equipment for drying (pp. 14-32); Continuous driers (pp. 33-43); Storage drying in bin (pp. 44-58); Storage drying on-floor (pp. 59-73); Batch driers (pp. 74-78); Grain chilling (pp. 79-81); Grain cooling (pp. 82-86); Choosing a grain drying and storage system (pp. 87-89); Equipment for handling grain (pp. 90-98); Grain cleaning (pp. 99-107); Grain weighing (pp. 108-113); Store hygiene (pp. 114-118); and Safety (pp. 119-120). 3 appendices are included: guide to capital costs (p. 121); Useful data (p. 122); and Appropriate metric conversion factors (p. 123). GL

2 2 3

Bakery products yeast leavened. [Book]

Renzo, D. J. de

Food Technology Review, Noyes Data Corporation

No. 20, xii + 456pp. ISBN 0-8155-0559-0 (1975)

[En] Park Ridge, New Jersey, USA; Noyes Data Corp. Price \$36

This book is based on US patents since 1960 relating to the processing of yeast-raised bakery products. It supplies detailed technical information and can be used as a guide to US patent literature in this field. Information is arranged under the following headings: Continuous bread-making processes (pp. 2-55); Fermentation methods (including yeast and yeast doughs, and sour dough preparation) (pp. 56-109); Emulsifiers (including monoglyceride based, hydrated monoglycerides, polyoxyalkylene derivatives) (pp. 110-168); Dough improvers (pp. 169-225); Preservation methods (pp. 226-273); Flavouring methods (pp. 274-300); Pretreated flours (pp. 301-324); Glazes, coatings, fillings and dusting compositions (pp. 325-345); Modified breads (including high protein breads, low calorie breads, dietetic breads) (pp. 346-389); and Speciality products (including bread products, sweet, doughs, crackers, pizza, frozen bread products, home preparations, pretzels) (pp. 390-456). Company, inventor and patent number indexes are included.

VJG

2 2 4

Composite flour technology bibliography. [Book]

Dendy, D. A. V.; Kasasian, R.; Bent, A.; Clarke, P. A.; James, A. W.

Report, Tropical Products Institute 989, vi + 132pp. ISBN 0-8594-003-2 (1975) [many ref. En] Price £1.50 [Tropical Products Inst., Culham, Abingdon, OX14 3DA, UK]

This second edition has twice as many references, each now annotated, as the first edition, which was issued as TPI Report G71 [see FSTA (1973) 5 3M274]. It has a comprehensive classification and is provided with Subject and Authors' indexes. The references are arranged under the following headings: Reviews and bibliographies (pp. 1-9); Leavened bread (pp. 11-19); Unleavened bread (pp. 21-22); Flour confectionery, biscuits (pp. 23-27); Miscellaneous food products (pp. 29-30); Pasta and grain substitutes (pp. 31-39); Cereals (including maize, rice, sorghum, millet, barley, oats, rye, triticale, chenopods, and teff) (pp. 41-60); Tubers and roots (including cassava, yams, potato, sweet potato) (pp. 61-68); and Protein supplementation (including soybean, groundnut, cottonseed, sunflower, rape, coconut, sesame, safflower, legumes, gluten, milk, fish protein concentrate, amino acid, green plant products and single cell products) (pp. 69-124).

VJG

FATS, GLYCERIDES, LIPIDS, OILS

2.25

Form and function of phospholipids. [Book]

Ansell, G. B.; Hawthorne, J. N.; Dawson, R. M. C. (Editors)

2nd Edition xiv + 494pp. ISBN 0-444-41055-4

(1973) [many ref. En] Amsterdam, Netherlands; Elsevier Scientific Publishing Co. Price £19.00

[Dept. of Pharmacology, Univ., Birmingham, UK]

This book, comprising 16 chapters by different authors, is a compendium of major investigations into phospholipids, and includes the chemistry, separation, analysis and metabolism of phospholipids, their use as model membranes, monolayers, bilayers and vesicles, and their presence in biological membranes, subcellular organelles, photosynthetic plants, microorganisms and various mammalian tissue (including mammary gland and milk). There is a separate chapter on phosphonolipids. DMK

226

The oil palm, its culture, manuring and utilisation.

[Book]

Kee, N. S.

142pp. (1972) [many ref. En] Berne,

Switzerland; International Potash Institute [Rubber Res. Inst., Malaya]

This book is the revised edition of the monograph originally published in 1957. It includes the following chapters: The economic importance of the oil palm (pp. 3-9, 5 ref.); Distribution of the oil palm (pp. 10-11, 5 ref.); Botanical description of the oil palm (pp. 12-18, 11 ref.); Ecological requirements of the oil palm (pp. 19-23, 7 ref.); Planting of palms (pp. 24-35, 18 ref.); Agronomic practices (pp. 36-42, 17 ref.); Diseases and pests (pp. 43-55, 22 ref.); Nutrition and manuring (pp. 56-121, 108 ref.); Harvesting and processing (pp. 123-130, 10 ref.); Composition, processability and uses of palm oil and kernels (pp. 131-137, 14 ref.); and The future (pp. 138-140, 5 ref.). VJG

227

[Preparatory operations for oilseeds processing.]

Podgotovitel'nye protsessy pererabotki

maslichnykh semyan. [Book]

Beloborodov, V. V.; Matsuk, Yu. P.; Kirievskii, B. N.; Kuznetsov, A. T.

336pp. (1974) [292 ref. Ru] Moscow, USSR;

Pishchevaya Promyshlennost'. Price 1.36r

This book presents an analysis of a series of new methods relating to preliminary treatment in the oilseeds processing industry. Chapters included are: Technological properties of oilseeds and their components (pp. 10-60); Cleaning and grading of oil seeds (pp. 61-197); Moisture and temp. seed conditioning (pp. 198-275); Disintegration of oilseeds (pp. 275-300); and Separation equipment and operations (pp. 301-321). STI

228

[Chemistry of fats.] Khimiya zhirov. [Book]

Tyutyunnikov, V. N.

446pp. (1974) [22 ref. Ru] Moscow, USSR; Pishchevaya Promyshlennost'. Price 0.77r

The book includes the following chapters: Lipids (pp. 5-12); Acids of lipids (pp. 12-33); Physical properties of fatty acids (pp. 33-93); Structure of fatty acids under various conditions (pp. 72-93); Chemical properties of fatty acids (pp. 93-196); Methods of synthesis of fatty acids (pp. 196-201); Alcohols of lipids (pp. 202-218); Glycerides (pp. 218-354); Substances accompanying glycerides in fats and admixtures (pp. 354-408); and Fats (pp. 408-435). STI

229

[Invisible' fats and lipids in foods, and their significance for human nutrition.] "Unsichtbare"

Fette und Lipide in Lebensmitteln und ihre Bedeutung für die menschliche Ernährung.

[Conference proceedings]

Zöllner, N. (Germany, Federal Republic of, Deutsche Gesellschaft für Ernährung) (Editor)

Wissenschaftliche Veröffentlichungen der

Deutschen Gesellschaft für Ernährung vii + 184pp.

ISBN 3-7985-0363-X (1973) [many ref. De, En] Darmstadt, Federal Republic of Germany; Dr.

Dietrich Steinkopff Verlag

The full text is given of the papers presented at this symposium, held in Munich, 27-28 April 1972, including the following: Tissue lipids of animals as a source of 'invisible' fats, by A. Seher (pp. 18-24, 25 ref., De); Lipids in marine fish, by G. Lambertsen (pp. 25-31, 8 ref., En); 'Invisible' fats and other lipids in freshwater fish, by H. K. Mangold (pp. 32-38, 61 ref., De); Fat in cheese, by Z. Puhán (pp. 39-47, 19 ref., De); Fats and lipids in cereals and cereal products, by P. Ruckebauer (pp. 48-59, 41 ref., De); Lipids of photosynthetic tissue, by B. W. Nichols (pp. 60-65, 6 ref., En); Fats and lipids in fruit and vegetables, by A. Fricker (pp. 74-81, 12 ref., De); Effects of breeding and cultivation on fats of plant origin, by W. Schuster (pp. 82-99, 31 ref., De); Technological significance of 'invisible' fats and lipids in foods of animal origin, by A. L. Prabucki (pp. 100-103, 9 ref., De); The fat content of meat products - technological possibilities, by F. Wirth (pp. 104-111, De); The contribution of bread and bakery products to the fat supply, by A. Menger (pp. 117-125, 12 ref., De); and Legal aspects of the evaluation of 'invisible' fats, by H. Schulze (pp. 126-130, De). A 4-page subject index is included. AJDW

MILK & DAIRY PRODUCTS

230

Practical metrics for the dairy industry. [Book]

New Zealand, New Zealand Society of Dairy

Science and Technology, Wellington Branch 15pp. (1974) [En] Palmerston North, New Zealand, New Zealand Dairy Research Institute Price NZ\$1.25

This booklet contains tables for converting imperial weights and measures to the metric equivalents. In addition to general tables applicable to all types of dairy manufacture (conversion of temp. to °C or °F; milk weights from lb to l; UK tons, cwt and quarters to t; gal/h to l/h; lb/h to kg/h; and lb/in² to kPa), there are also charts applicable specifically to butter manufacture (salting, moisture control, and amounts of NaHCO₃ required for cream neutralization), cheese manufacture (rennet and salt requirements) and casein manufacture (starter and rennet requirements). ADL

231

National collection of dairy organisms. [Book]

United Kingdom, National Institute for Research in Dairying

62pp. (1974) [En] Reading, UK Price £0.50

This catalogue of strains included in the collection maintained at the National Institute for Research in Dairying, is divided into 2 sections: in the 1st section, entries are listed in alphabetical order with the collection number, the number or name under which the strain was deposited, the name of the donor, date of deposition, and any special information regarding the culture (excluding that contained in catalogues of other collections); the 2nd section is a numerical list of the cultures. The collection includes organisms causing spoilage as well as those used in fermentations. CDP

232

[Milk and milk products.] Milch und Milcherzeugnisse. [Book]

Kiermeier, F.; Lechner, E.

15, 443pp. (1973) [301 ref. De] Berlin, Paul Parey [Milchwissenschaftliches Inst., Freising-Weihenstephan, Federal Republic of Germany]

This book, one of a series of food analysis, is divided into 2 parts: A. Production and properties of milk and milk products; B. Analysis of milk and milk products. Part A contains the following chapters: Lactogenesis, milking and milk processing (pp. 19-52); Milk components from the analytical standpoint (pp. 52-73); Factors impairing raw milk quality (pp. 73-86); Effect of processing on milk components (pp. 86-99); Other factors liable to impair milk quality (pp. 99-105); Production of condensed milk and dried milk products (pp. 105-118); Production of cultured milk products and yoghurt (pp. 118-124); Cream, butter, buttermilk and butterfat (pp. 124-141); Cheese (pp. 141-181). The 18 chapters in Part B relate to requirements for milk and milk products, sampling methods, methods for determination of fat and N compounds, methods for detecting adulterated or contaminated milk, tests for heat

treatment, and methods for the assessment of each type of product (UHT milk, cultured milks and yoghurt, buttermilk, cream, condensed milk, dried milk, acid casein, butter, quarg, cheese, processed cheese, whey cheese etc.) ADL

233

[Yoghurt production.] Joghurtherstellung. [Book] Dalhuisen, J. J. 40pp. (1974(?)) [28 ref. De] Amsterdam, Netherlands; Stork-Amsterdam

After a brief general introduction dealing particularly with the recent growth in yoghurt production and consumption, the author describes the various types of yoghurt (including acidophilus milk, kefir and koumiss) and the ways they are produced. Various technological aspects are discussed (microbiological examination, antibiotics in milk, infection by bacteriophages, etc.), and with reference to a flow diagram information is given on manufacturing practices in France, Germany, the Netherlands, Switzerland and other countries. Finally, details are given of machines and equipment used (particularly those supplied by Stork-Amsterdam), including starter production equipment, tanks, dried milk dosing equipment, evaporators, heat exchangers, pumps, incubation chambers, and packaging and filling machines. ADL

234

[Statistical report on the dairy industry in the German Federal Republic and other EEC member states. Section 2. Co-ordination of planning and economic surveying. Report 223: Market studies - domestic and EEC.] Statistischer Bericht über die Milch- und Molkereiwirtschaft in der Bundesrepublik Deutschland und den EG-Mitgliedstaaten. Abteilung 2. Planungskoordination und Wirtschaftsbeobachtung. Referat 223: Marktbeobachtung - Inland und EWG. [Book] Reckenfelderbäumer, L.; Hafenmayer, H. (Germany, Federal Republic of, Bundesministerium für Ernährung, Landwirtschaft und Forsten) (Editors) 184pp. (1974) [De] Bonn, German Federal Republic

The 1st part of this report contains text and tables relating to milk production and utilization, manufacture, import, export, consumption and prices of dairy products, producer prices for milk, and farm return prices for skim-milk and buttermilk in the German Federal Republic over the period 1968-1973. The 2nd part gives similar tabulated data for the various member countries of the enlarged EEC, while the final part gives data for the individual Länder of the German Federal Republic. [See also Statistical report on dairying and dairy industry of the German Federal Republic and other EEC countries. Long term development up to 1972. Supplement to 1952-71 editions. (1973) 88pp. Published by Hildesheim, Federal Republic of Germany; Verlag Th Mann OHG.] ADL

235

Changes in lactose contents of whey during biosynthesis of pectolytic enzymes and β -galactosidase by *Sclerotinium sclerotiorum* and *Aspergillus awamori* strain 16. (In "Ispol'zovanie mikroorganizmov i ikh metabolitov v narodnom khozyaistve".) [Book]

Astanovich, N. I.; Babitskaya, V. G.; Grel', M. V. pp. 50-53 (1974) [11 ref. Ru] Minsk, USSR; Izdatel'stvo 'Nauka i tekhnika' [Otdel Mikrobiol, AN Belorusskoi SSR, Minsk, USSR]

(i) *Scl. sclerotiorum* VKM[f] 879 and (ii) *Asp. awamori* 16 were grown in tvorog whey freed from proteins by heating at 1 atm gauge pressure for 15 min and filtration. For (i), the whey was diluted 1:1 with water and supplemented with 0.25% $(\text{NH}_4)_2\text{HPO}_4$; and for (ii), the whey was diluted with twice its vol. of water and supplemented with 0.5% NH_4NO_3 and 1% sucrose. Culturing was in conical flasks at 23-25°C using a shaker. Lactose being progressively utilized by (i) to form appreciable quantities of β -galactosidase, glucose contents remaining ≤ 0.01 mg/ml; (ii) formed only traces of β -galactosidase, there was little change in lactose level, and sucrose was progressively utilized. Both (i) and (ii) synthesized pectolytic enzymes mostly during the 1st 48-72 h of culturing. It is considered that lactose in whey medium serves as a regulator of pectolytic enzyme synthesis. SKK

236

Dairying in France. Physionomie de la France laitière. [Book]

France, Association Laitiere Francaise Ed. 3, 201pp. (1974) [Fr] Paris, France; Editions C.I.C.S.

This publication contains a number of generally brief articles on various dairying aspects arranged under the headings of milk products in human nutrition; milk production on the farm; milk processing; markets for dairy products; control, supervision and quality; research, information and documentation; international co-operation and professional organization. The articles include the following: Consumption of milk products in France, by L. Henry (pp. 17-21); Dairy cattle in France, by P. Charlet (pp. 31-37); Production and utilization of goats' milk, by J.-C. le Jaouen (pp. 41-46); Milk recording, by M. Cattin-Vidal (pp. 49-51); Equipment used in French dairies, by J.-L. Evette (pp. 73-75); French blue-veined cheeses, by A. Chanier (pp. 97-99); Pressed cheeses made without scalding, by G. P. Salat (pp. 103-106); Goats' milk cheeses, by A. Fatoux (pp. 113-117); and Developments in processing techniques of goats' milk cheese manufacture, by H. Portmann (pp. 119-121); Other topics covered include cultured milks, cream, lactose, casein and its derivatives, ice cream and control of dairy products. FL

237

[Some characteristics of lactose utilization by cellulase-producing *Trichoderma lignorum* in a semi-synthetic medium and in a medium with whey.] (In "Ispol'zovanie mikroorganizmov i ikh metabolitov v narodnom khozyaistve"). [Book]
Pavlovskaya, Zh. I.; Lobanok, A. G.
pp. 66-69 (1974) [5 ref. Ru] Minsk, USSR; Izdatel'stvo 'Nauka i Tekhnika' [Otdel Mikrobiol. AN Belorusskoi SSR, Minsk, USSR]

T. lignorum was grown in whey diluted 1:1 with water and supplemented with 0.3% NaNO_3 + 0.05% MgSO_4 (pH 4.8), and in a semi-synthetic medium containing 2.5% lactose, 0.05% maize extract, 0.5% NaNO_3 , 0.05% MgSO_4 and 0.04% KH_2PO_4 (pH 4.8). Culturing was at 28°C using a shaker. The culture liquor was examined after 24, 48, 72 and 96 h for cellulolytic activity and lactose utilization. It is concluded from graphically presented results that in the process of cellulose synthesis, lactose is split enzymically into glucose and galactose, both of which are utilized as fast as they are formed. SKK

238

Cream processing manual. [Book]

Rothwell, J. (United Kingdom, Society of Dairy Technology) (Editor)
126pp. (1975) [15 ref. En] Wembley, UK

This manual gives a concise coverage of the subject from milk as the raw material to legislation. The chapters are raw milk quality and suitability, separation and standardization, pasteurization, sterilized cream, storage, distribution and handling, scalded and clotted cream, the whipping of cream, laboratory control, and legislation and codes of practice. FL

239

[Study for the establishment of a milk collection and cooling network in Galicia.] Estudio para el establecimiento de una red de recogida y refrigeración de leche en Galicia. [Book]
Spain, Ministerio de Agricultura, Subdirección General de Industrias Agrarias
345pp. (1974) [Es] Madrid, Spain

A detailed study is made of milk collection in Galicia, Spain, based on a complete survey of dairying in the region, including data on cattle stocks, milk production and utilization. In the 2nd part of the study an analysis is made of the structural, technical and economic aspects of an optimum collection network based on a series of primary refrigerated depots, from which milk would be taken to collection centres and thence distributed to dairies in and outside the region. There are numerous maps, graphs and statistical tables. ADI

240

Whey processing and utilization. Economic and technical aspects. [Book]

Gillies, M. T.

Food Technology Review, Noyes Data Corporation
No. 19, x+211pp. ISBN 0-8155-0552-3 (1974)
[En] Park Ridge, New Jersey, USA; Noyes Data Corp. Price \$24

This book, which is also No. 15 in the Pollution Technology Review Series, is based on authoritative reports of projects sponsored by the US government, state agencies etc. Important processes are interpreted and explained using examples from US patents. Information is arranged under the following headings: Utilization versus pollution (pp. 3-23); Whey processing (including drying, fermentation and membrane processing) (pp. 24-54); Proprietary processes for treating whey (including lactose removal, and spray and hot air drying) (pp. 55-76); Properties and uses (including nutritional aspects, chemical problems, functional properties, and uses in human food and animal feeds) (pp. 77-113); and Patented processes for using whey (including animal feeds, confections, flavourings, edible yeast cell mass, whey beverages, dairy products and baked goods) (pp. 114-207). Company, inventor and patent number indexes are also provided. VJG

241

An economic history of milk marketing and pricing. A classified bibliography with reviews of listed publications, 1840-1970. [Book]

Spencer, L.; Blanford, C. J.
ii+978pp. (1973) [En] Columbus, Ohio, USA; Grid

242

[Self-desludging milk separators.]

Samorazgruzhayushchiesya molochnye separatory. [Book]

Novikov, O. P.; Stepanyatov, V. E.
43pp. (1974) [5 ref. Ru] Moscow, USSR; Pishchevaya Promyshlennost'. Price 0.15 r

The booklet deals with the design of self-desludging centrifuges used for milk clarification, milk separation and whey clarification. Information relating to cleaning and operation of these separators is presented. The booklet contains the following chapters: Designs of self-desludging separators (pp. 4-24); and Use of self-desludging separators (pp. 25-43). STI

243

Cooking with yogurt. [Book]

Orga, I.

112pp. ISBN 0-233-96653-6 (1975) [En]
London, UK; Andre Deutsch Ltd. Price £1.75

This booklet contains over 100 recipes using yoghurt in the preparations of soups, fish, meat and poultry, egg dishes, vegetables, salads, hors d'oeuvre, savouries, desserts, gateaux, sauces and dressings, and icing and fillings. EI

244

The cheese handbook. [Book]

Layton, T. A.

Ed. 2, 158pp. ISBN 0-486-22955-6 (1973) [En]
New York, USA; Dover Publications Inc.

This guide to the world's best cheeses' is an unabridged, but corrected, republication of a book originally published in 1957 under the title *Choose your cheese*. Part I deals with cheese in general, commencing with a chapter on cheese in literature (including such items as derivatives of the word, Shakespeare's cheese references, and cheese in verse), followed by chapters on manufacture of cheese, buying, storing, keeping and serving of cheese, recipes of hot and cold cheese dishes from various countries, and the gastronomy of cheese. Part II contains information on cheese varieties, listed according to country. 2 appendices which have been added to this edition give additional varieties and cheese recipes to bring the total up to 257 varieties and 100 recipes. The informal style of this book, written by a British wine and cheese expert, makes light-hearted reading for anyone interested in selecting cheeses and enjoying them at their best. ADL

245

[The making of goats' cheese on the farm.] La fabrication du fromage de chevre fermier. [Book]
Jaouen, J.-C. le

213pp. (1974) [Fr] 75579 Paris, France; Institut Technique de l'Elevage Ovin et Caprin

After a brief introduction, the author describes the characteristics of goats' milk (composition, structure, defects occurring, etc.) and the fundamental principles of cheesemaking (coagulation, draining and ripening). He then goes on to deal with the practical procedure involved in the various stages of goats' cheese production on the farm: preparation of milk; coagulation; moulding; draining; removal from moulds; salting; drying; and ripening (inoculation with *Penicillium*, ambient control of ripening rooms, accidents and defects in ripening, and storage and packaging of the cheese). The final chapters relate to the cheesemaking room, the drying room and the ripening room, dealing with such questions as optimum location, flooring, water supply, effluent disposal, equipment and cleaning. There is also a short dictionary of French goats' cheeses (including details of production areas, shape, dimensions, wt., production process) and a chapter giving pertinent French legislation. ADL

246

[Gorgonzola cheese.] Il formaggio Gorgonzola. [Book]

Delforno, G.

126pp. (1971) [many ref. It, en] Rome, Italy;
Tipolitografia "Atena" [Istituto Sperimentale per le Colture Foraggere di Lodi, Milan, Italy]

The areas where Gorgonzola is produced and its

characteristics (particularly chemical composition) are briefly described in the initial chapters. The main part of the book then deals with the technology of Gorgonzola manufacture (i) from 2 successive milkings and (ii) from milk from a single milking to which selected moulds and starters are added; type (i) is known as 'Gorgonzola a due paste' and type (ii) as 'Gorgonzola ad una pasta' or 'Gorgonzola con i fermenti'. Finally, the principal types of deterioration and defects occurring in the cheese and preventive and remedial measures are discussed. Data on production and exports are also given. ADL

247

[Distribution chains of goats' cheese.] Les circuits de distribution des fromages de chevre. [Book]

Badiou, -.; Gernelle, -.; Kramarz, -.

77pp. (1973) [Fr] 75579 Paris, France; Institut Technique de l'Elevage Ovin et Caprin [Societe d'Etudes pour le Developpement Economique et Social, 75007, Paris, France]

An attempt was made to assess the prospects for an increase in goats' cheese consumption in France, by studying factors liable to prevent present and anticipated future demand from being satisfied. 16 goats' cheese producers, 30 middlemen and 109 retailers were covered by the study, which was supported by a consumer study (published separately). Main conclusions included: (i) annual increases of >10% in sales were possible; (ii) there would be a decline in the role of independent producers, small wholesalers and small retail shops; (iii) the increasing role of purchasing centres and large shops would influence qualitative demand, with big increases in sales of Ste Maure cheese in particular; there would be a big demand for factory cheese, but farm cheese would probably retain its special position in the market; (iv) policies to encourage goats' milk production were urgently needed in order to take advantage of market opportunities; (v) difficulties in increasing retail sales related mainly to product quality rather than price, and to the consumers' poor knowledge of the cheeses (29% of housewives could not name a single goats' cheese). ADL

248

Fundamentals of dairy chemistry. [Book]Webb, B. H.; Johnson, A. H.; Alford, J. A.
((Editors))Ed. 2, ix+929pp. ISBN 0-87055-143-4 (1974)
[many ref. En] Westport, Connecticut, USA; AVI Publishing Co., Inc. Price \$39 (US) £40 (Foreign)
[Dairy Products Lab., USDA, Washington, DC, USA]

This edition, intended as a text and reference book, emphasizes the basic chemistry of milk and dairy products and also includes related aspects of microbiology and technology. All the chapters of the 1st edition [Webb & Johnson, (1965) *Fundamentals of dairy chemistry*] have been revised and updated or completely re-written, in many

cases by different authors; the literature is covered into 1971 but some chapters have 1972 references. The chapters are: The composition of milk, by A. H. Johnson (pp. 1-57, 424 ref.); Composition of milk products, by R. E. Hargrove & J. A. Alford (pp. 58-86, 35 ref.); Proteins of milk, by W. G. Gordon & E. B. Kalan (pp. 87-124, 231 ref.); The lipids of milk: composition and properties, by F. E. Kurtz (pp. 125-219, 364 ref.); The lipids of milk: deterioration, by D. P. Schwartz & O. W. Parks (pp. 220-272, 381 ref.); Lactose, by T. A. Nickerson (pp. 273-324, 233 ref.); The vitamins in milk and milk products, by A. M. Hartman & L. P. Dryden (pp. 325-401, 175 ref.); Physical properties of milk, by R. Jenness, W. F. Shipe, Jr. & J. W. Sherbon (pp. 402-441, 262 ref.); Physical equilibria: proteins, by H. M. Farrell, Jr. & M. P. Thompson (pp. 442-473, 109 ref.); Physical equilibria in milk: the lipid phase, by J. R. Brunner (pp. 474-602, 441 ref.); Milk coagulation and protein denaturation, by R. M. Parry, Jr. (pp. 603-661, 265 ref.); Milk clotting enzymes and cheese chemistry, by C. A. Ernstrom & N. P. Wong (pp. 662-771, 775 ref.); Fermentations, by E. H. Marth (pp. 772-872, 576 ref.); and Frozen dairy products, by P. G. Keeney & M. Kroger (pp. 873-913, 198 ref.). A 14-pp. index is included. DMK

249

[Dairy production handbook.] Mlekarenska prirucka. [Book]
Knez, V.

448pp. (1974) [25 ref. Cs] Prague, Czechoslovakia; SNTL. Price 38Kcs

All important data necessary for production and control calculations in the dairy industry are presented in tables and supplemented by calculation acids and formulae. The following chapters are included: Tables, diagrams and nomographs (pp. 11-29); Milk and dairy products (pp. 29-214); Composition and properties of other products and ancillary materials used in the dairy industry (pp. 215-231); Water and power management at dairy plants (pp. 232-278); Material handling and storage (pp. 279-342); Investments and building in the dairy industry (pp. 343-376); Machinery for the dairy industry (pp. 377-411); Standard values and other important constants in dairy industry (pp. 412-432); and Development of Czechoslovak dairy industry (pp. 432-448). STI

250

[Fractionation of milk fat by crystallization without solvents or additives.] [Book]
Kankare, V.

Meijeritieteellinen Aikakauskirja 33 (2) 132pp.
ISBN 951-99039-3-3 (1974) [many ref. Fi, en]

In 3-stage fractionation, milk fat crystallized at 24°C exclusively as spherulites or spherulite agglomerations of 100-1000 µm, at 18°C mainly as round spherulites of 100-250 µm, and at 12°C mainly as round globules of 150-250 µm with a

stratified structure. If the fat was refrigerated rapidly, globules of 20-50 µm were obtained. The effects of stirring and pumping were also studied. The proportions of the 3 solid fractions (formed at 24°, 18° and 12°C) and final liquid fraction were 30, 9, 28 and 33%, respectively, in milk fat produced during the indoor feeding season (iodine number 31.2, mp 32°C). The iodine values of the fractions were 24.9, 24.1, 28.7 and 40.5 and their mp 40.6, 30.2, 22.3 and 12.2°C. The proportions of these fractions in milk fat produced during the grazing season (iodine value 37.2, mp 31°C) were 16, 6, 29 and 49%, with iodine values 29.3, 30.6, 31.1 and 44.3 and mp 39.6, 39.8, 25 and 13°C. Analyses with a differential scanning calorimeter showed that the melting and crystallization characteristics of the fractions changed markedly with progressive fractionation. [From En summ.]

251

[Physical properties of milk.] Fyzikalni vlastnosti mleka. [Book]

Janal, R.; Blahovec, J.

158pp. (1974) [206 ref. Cs] Prague, Czechoslovakia; VUPP Stredisko Technickych Informaci Potravinarskeho Prumyslu

This book, based on published material (up to 1973) and the results of extensive experiments carried out by workers at the University of Agriculture in Prague, presents information on physical properties of milk (structure, sp. gr., thermal characteristics, viscosity, surface tension, electrical conductivity and dielectric properties, optical characteristics, etc.). The publication is intended for technical and other staff of dairy plants as well as for students and employees of agricultural and food institutes. FL

252

Milk and dairy foods. [Book]

Porter, J. W. G.

64pp. ISBN 0-19-859431-3 (1975) [12 ref. En] London, UK; Oxford University Press Price £1 [Nutr. Dept., Nat. Inst. for Res. in Dairying, Shinfield, Reading RG2 9AT, UK]

This book provides information about the composition of milk and milk products (processed liquid milk, dried milk, infant foods, cheese, cream, butter, margarine, ice cream, soured and fermented milk and dairy foods), and shows the relationship between composition and nutritive value, and how both are affected by the various manufacturing processes used in the dairy industry. Legislation controlling milk and dairy foods is also covered. The book is essentially for teachers and students of home economics, household science, catering training, and allied subjects. It should also be of interest to general readers who want to understand the scientific basis of practical nutrition. DMK

253

Recommendations for hygienic milk production on dairy farms. [Book]

Ireland, Republic of, An Foras Taluntais

18pp. (1975) [En] Dublin, Irish Republic Price £0.50

The aim of this booklet is to inform dairyfarming organizations, advisory personnel and milk producers of the major requirements for hygienic milk production, and to alert all concerned to impending EEC regulations in relation to production of milk for human consumption. Recommendations refer to: construction, reconstruction, use and layout of milking facilities; sanitation of milking facilities; protection of milk from contamination; and minimum quality standards. Appendices contain a glossary of terms, and standards for potable water supplies. CDP

254

[Dairy technology in questions and answers.]

Milchwirtschaftliche Technologie in Fragen und Antworten. [Book]

Voss, E.

248pp. (Undated) [De] Kempten, Federal Republic of Germany; Volkswirtschaftlicher Verlag GmbH

This useful book, intended mainly for self-teaching, is arranged in the form of questions and answers which are intended to provide the bases for further study. Ways of solving problems relating to quality improvement, product development and process control are also indicated, for the benefit of specialists already working in laboratories, dairy establishments or the advisory services. Concise answers are given, for example, to the following questions: how can wheying-off be influenced by technological measures so as to obtain cheese of the desired moisture content; how is milk fat distributed in cheesemaking; what methods are used for separating curd and whey; what does cheddaring mean; on what factors does solubility of dried milk depend; are air and oxygen soluble in milk fat; what is 'dulce de leche'. The book comprises 14 chapters, each with references, dealing with the general fundamentals of dairy technology, the various types of milk, cream, cultured milk and cream, ice cream and frozen products, butter, cheese, condensed milk products, dried milk products, milk fat, whey and whey products, milk protein products, reconstituted and recombined products, and finally process control and product development. There is a subject index (pp. 245-248). ADL

255

[Vth Yugoslav International Symposium on modern milk production and dairy technology, Portoroz, Yugoslavia, 16-18 April, 1973.] V. Jugoslovanski modnarodni simpozij sobobna proizvodnja in predelava mleka, Portoroz, 16.-18. aprila 1973. [Conference proceedings]

Yugoslavia, Univerza v Ljubljani
575pp. (1973) [many ref. Sn, Sh, De, En]
Ljubljana, Yugoslavia; Univerza

Abstracts of 14 papers from this meeting are published in FSTA and are in the author index under Yugoslavia, Univerza v Ljubljani [Symposium]. VJG

256

[Milk forum '74, 6-9 May, 1974, Bonn.]

Milchforum '74, 6.-9. Mai, 1974, Bonn.

[Conference proceedings]

Centrale Marketinggesellschaft der Deutschen Agrarwirtschaft mbH; Verband der Deutschen Milchwirtschaft eV

176pp. (1974) [De] Hildesheim, Federal Republic of Germany; Verlag Th. Mann Price DM9.80

This book reproduces the following papers presented at a meeting in Bonn on 6-9 May 1974 to mark the centenary of the German Dairying Federation (Verband der Deutschen Milchwirtschaft): Basic requirements and nutrition - human behaviour in the light of social and technical change, by H. Krauch (pp. 15-25, 10 ref.); Dairying from the viewpoint of health policy, by H. Elstner (pp. 26-30); Milk in nutrition adapted to work, by W. Wirths (pp. 31-42, 27 ref., giving extensive data on the proportions of total nutrient intake provided by milk among different professional categories, etc.); Milk, environment and man, by A. Tolle, (pp. 43-60, 3 ref.); Dairying as a branch of the food industry, by T. Meggle (pp. 61-74); Milk production and the problem of guaranteeing supplies without surpluses, by H. O. Gravert (pp. 75-85); The world protein situation - a challenge to dairy research, by H. Klostermeyer (pp. 86-99); New technologies for made-to-measure dairy foods, by M. Naudts (pp. 100-112). [Continued in following abstr.] ADL

257

Milk forum '74, 6-9 May, 1974, Bonn. Milchforum '74, 6.-9. Mai 1974, Bonn. [Conference proceedings]

Centrale Marketinggesellschaft der Deutschen Agrarwirtschaft mbH; Verband der Deutschen Milchwirtschaft eV

176pp. (1974) [De] Hildesheim, Federal Republic of Germany; Verlag Th. Mann Price DM9.80

[Continued from preceding abstr.] The position of dairying in the development of the whole economy, by K.-H. Haisch (pp. 113-123); Rational production of high-quality milk, by O. Wagner (pp. 124-127); Dairy technology as a marketing instrument, by R. Hilker (pp. 128-131); New dairy products, by A. Nienhaus (pp. 131-134); Modern wholesale distribution systems, by D. Scheer (pp. 135-139); Retailing in the consumer age, by E. Krumme (pp. 139-145); Joint marketing of dairy producers - a chance for cooperation, by E. Höbermann (pp. 145-149); Advertising as a function in the market, by H.-W. Fuhrmann (pp. 149-151); Nutritional physiology aspects, by A. Lembke (pp. 152-159, 18 ref.); Aspects of the dairy industry, by H. Pirner (pp. 160-162); Marketing as an intermediary between producer and consumer, by H. Fahrnschon (pp. 163-165); and Consumers' wishes, by G. Trurnit (pp. 165-168). A summary of discussions at the meeting is given on pp. 169-176. ADL

258

[Milk and milk products balances in OECD member countries 1959-1972.] Bilans du lait et des produits laitiers dans les pays membres de l'OCDE. [Book]

Organization for Economic Cooperation & Development
163pp. ISBN 92-64-01194-3 Price £2.50 (1974)
[En, Fr] Paris, France

This book includes numerous tables of data for the production, total consumption and per capita consumption of milk and other dairy products (cheese, butter, dried milk, condensed milk) in the OECD member countries during the period 1959-1972. ADJW

259

[An outline of dairy microbiology.] Grundriss der milchwirtschaftlichen Mikrobiologie. [Book]
Demeter, K. J.; Elbertzhausen, H.
122pp. ISBN 3-7862-0023-8 (Undated) [De]
Hildesheim, German Federal Republic; Verlag Th. Mann

This is the 7th edition of a book formerly entitled *Bacteriology for the dairy school* (*Bakteriologie für die Molkereischule*), by the late W. Henneberg. This revised edition includes numerous microphotographs of dairy organisms (replacing the earlier pen drawings) as well as various other additional illustrations. Other new features are a section on the nitrate reduction test and brief accounts of the theory and practice of Gram staining. The book is divided into 2 main headings: General microbiology (dealing with such aspects as the history of microbiology, the shape and size of organisms and their multiplication, test methods applicable to milk, and the effects of cold, radiation, electricity, ultrasonics, pressure, disinfectants and antibiotics on organisms); and Special microbiology (with sub-sections on the various types of yeasts and various genera of moulds and bacteria). There is a detailed subject index (pp. 105-122). ADL

260

Sulfur in ruminant nutrition [including its elimination in milk]. [Review]

Whanger, P. D.

World Review of Nutrition and Dietetics 15, 225-255 ISBN 3-8055-1397-6 (1972) [137 ref. En]
[Dept. of Agric. Chem., Oregon St. Univ., Corvallis, Oregon 97331, USA]

261

Bulk milk collection for industrial processing in West Pakistan. [Book]

Hami, M. A. (Noon Pakistan Ltd.)
16pp. (1973) [24 ref. En] Sargodha-12, Pakistan; Matbooat

This review-type booklet covers the following aspects: siting and operation of milk collection centres; milk reception at the collection centre; pricing of fresh milk; adulteration of milk; hygienic quality of milk; preservation and preservatives; fluctuations in milk collections; and competition in the dairy industry. MC

262

Dairying in India. A review. [Book]

Khurody, D. N.

vii + 255pp. ISBN 0-210-40564-3 (1974) [En]
Bombay, India; Asia Publishing House

The subject is discussed in relation to land reforms, fodder and feed production, agricultural credit, capacity of the country to spend money on dairying, purchasing capacity of the masses to buy milk, animal husbandry problems, religious aspects and legal constraints. The author highlights the position of dairying in India before and after Independence, and criticizes the large-scale expenditure of public funds on the manufacture of Western-type dairy products. One chapter is devoted to breeds of Indian cows and buffaloes, with accompanying photographs. Other topics discussed include cross-breeds, adulteration of milk, foreign aid to develop the dairy industry, dairy education and research, manufacture of dairy machinery, and institutions employed in dairy development. DMK

263

[Dairy science: principles of dairy techniques.]

Science du lait: principes des techniques laitières.

[Book]

Alais, C.

Ed. 3, 808pp. (1975) [Fr] Paris, France: SEPAIC

This book has been written with the aim of collecting scientific data on dairy products from many sources, interpreting them, arranging them in logical sequence, and drawing attention to the most important points. This edition follows the same layout and presentation as the previous edition (1965) but includes many new references. The main fields covered are: milk secretion; composition and properties of milk and the effect of processing on them; microbiology and hygiene (lactic bacteria, starters, mastitis etc.); milk production (factors affecting milk yield and composition, milking, collection, cooling, quality payment etc.); and the various types of dairy products and technical and nutritional problems relating to them. There is an alphabetical index. ADL

264

[The Yaroslavl breed of cattle.] Yaroslavskaya poroda skota. [Book]

Monoenkov, M. I.

280pp. (1974) [Ru] Yaroslavl, USSR; Verkhne-Volzhscoe Knizhnoe Izdatel'stvo

This monographs, of which 5000 copies have been printed, briefly reviews the origin of the Yaroslavl breed and gives information on its milk and meat production characteristics, conformation, milkability, udder characteristics, mastitis resistance, selection of bulls for daughters' milking rate, etc. Milk production of the breed has fallen as a result of crossing with bulls of beef breeds, to produce dual-purpose cattle. ADL

265

Whey utilization in the dairy industry.

Wykorzystanie serwatki w przemyśle mleczarskim. [Book]

Czerwinski, S.; Imbs, B.

116pp. (1974) [many ref. Pl] Warsaw, Poland; Zakład Wydawnictw CRS

After briefly reviewing production in Poland, this book deals with the characteristics of whey (composition, physical properties etc.) and its use for animal feeding and human foods (whey beverages, milk substitutes, 'kisiel' and jellies, whey butter, whey protein products, bakery and confectionery products etc.). Various methods of extracting whey components are reviewed (reverse osmosis, ultrafiltration, electrodialysis, transport depletion, gel filtration, as well as the production technology, yield and properties of dried whey. Production of biomass, lactose and zinc and calcium lactates is discussed in detail, and other possible utilizations of whey are briefly mentioned. Finally, the economics of whey processing are examined. ADL

266

[Hydrolysis of cows' and ewes' milk casein by animal or microbial coagulating enzymes.]

Sumbole eis ten meleten tes udroluseos kazeinon ek proveiou kai ageladinou galaktos upo pektikon enzumon zoikes kai mikrobiakes proeleuseos.

[Book]

Kalatzopoulos, G. K.

96pp. (1974) [86 ref. Gr, en] Athens, Greece; Anotate Geoponike Shole [Dept. of Dairying, Agric. College, Athens, Greece]

Hydrolysis of cows' and ewes' milk casein by various exnzymes (calf rennet, pepsin, rennet from sheeps' abomasum, Mucor miehei enzyme and Pfizer Endothia parasitica enzyme, with and without Lactobacillus helveticus) was studied at 30°C, pH 5.8, 2% casein concn. and 1:2000 enzyme/substrate ratio, over a period of 2 h. Hydrolysis products were analysed by Folin and ninhydrin reactions, direct spectrophotometric measurement at 274 nm, polyacrylamide gel electrophoresis and fractionation on Sephadex G25 columns. 2 and 12% trichloroacetic acid was used to separate the hydrolysed casein and differentiate breakdown products according to mol. wt. Results by the ninhydrin method (but not by the Folin reaction) suggested that enzymes of animal origin, especially rennet from sheeps' abomasum, hydrolysed ewes' casein more than cows' casein.

Microbial enzymes, however, appeared more active in hydrolysis of cows' casein. Intracellular enzymes of *L. helveticus* had little proteolytic effect on pure casein; the ninhydrin method was most suitable for studying their action. combined with *L. helveticus* enzymes had a greater effect on ewes' casein than enzymes in isolation; the best combination was rennet from sheeps' abomasum + *L. helveticus* enzymes. The effect of *L. helveticus* enzymes in combination with Pfizer enzyme was impossible to determine owing to the intense proteolytic action of the latter. Characteristic differences were observed between hydrolysis products as regards solubility in 2 and 12% trichloroacetic acid, electrophoresis and column chromatography results. ADL

267

Milk and beef production in the tropics. [Book]

Barrett, M. A.; Larkin, P. J.

viii + 245pp. ISBN 0-19-859445-3 (1974) [En] Oxford, UK; Oxford Univ. Press Price £2.75

This book, intended for students and stock farmers in the tropics, includes the following chapters giving information of interest to food scientists: Milk production (pp. 133-159) [giving data for the composition of milk of various breeds of cattle, and a discussion of dairy hygiene]; and Beef production (pp. 160-184) [including discussions of compensatory growth, rearing and fattening, meat quality, veal production, effects of castration and the use of antibiotics and hormones]. AJDW

268

Indian dairy products. [Book]

Rangappa, K. S.; Achaya, K. T.

v + 386pp. ISBN 0-210-26933-2 (1974) [many ref. En] Bombay, India; Asia Publishing House

Many topics in the 1st edition [The chemistry and manufacture of Indian dairy products (1948), Bangalore, India; Bangalore Printing & Publishing Co. Ltd.] have been expanded upon in this book, which also contains material from the Indian Journal of Dairy Science and the Indian Dairyman. The book is divided into 3 sections, and chapters are: milk; composition and properties of milk; major and minor constituents of milk; variations in composition of milk; adulteration and legal standards; bacteriology and heat treatment; unfermented milk products; fermentation in Indian dairy industry; preparation, quality and composition of dahi and lassi; butter; ghee and its place in the Indian diet; attributes, preparation and grading of ghee; constituents of ghee; the analytical characteristics of ghee; the adulteration of ghee and its detection; and rancidity in ghee. DMK

EGGS

269

[Eggs as food.] Vajce ako potravina. [Book]
Smetana, M.

127pp. (1974) [45 ref. Sk] Bratislava,
Czechoslovakia; Priroda. Price 7Kcs

This book includes the following chapters:
Production and consumption of eggs (pp. 5-17);
Composition of hens' eggs (pp. 17-25); Egg
production (pp. 25-37); Eggs in the human diet (pp.
37-47); Egg defects (pp. 47-59); Storage, grading
and transport of eggs (pp. 65-85); Domestic storage
of egg (pp. 85-89); Commercial egg products (pp.
89-111); and Egg dishes (pp. 111-124). STI

FISH

270

Product development. Frozen capelin products.
[Booklet]
Bearn, R.

*Regional Report, Newfoundland Inshore Capelin
Development Program* No. 4, 8pp. (1973) [En]

Capelin, which abound in the inshore waters of
Newfoundland, are usually in a state of fat
depletion and high moisture content. Improper
handling results in poor texture and unacceptable
taste and odour. Air drying or smoking reduces the
moisture content from over 83% to an acceptable 73-
74%. The traditional live steam heat treatment given
to sardines gives acceptable moisture losses for the
canning process. An alternative method for
moisture reduction in capelin is the utilization of
polyphosphate-salt-acid dips, which bind the
moisture and modify the flavour. Descriptions,
including diagrams, are given of processes for the
manufacture of breaded, smoked and salted
(corned) capelin. Breaded and smoked capelin are
individually quick frozen, packaged and labelled
prior to cold storage and distribution. Storage of
packaged dried salted capelin is preferably at
reduced temp. for max. keeping quality. GL

271

**Processing and product development of canned
capelin products.** [Booklet]
Uebel, W.

*Regional Report, Newfoundland Inshore Capelin
Development Program* No. 5, 20pp. (1973) [En]

This booklet gives a summary of studies on the
utilization of male capelin as food, and presents
general data on the handling and processing of
inshore and offshore capelin. Equipment and
methods for sorting, cutting, nobbing, dressing,
filleting, washing and brining of capelin are
described. During the relatively short capelin run it
is normally necessary to freeze and stockpile
capelin for processing during the off-season; capelin
were of acceptable quality for processing after cold

storage for ≤ 8 months. Studies on development of
canned capelin products are discussed, with
reference to: processing methods (thawing, brining,
smoking, steaming); sauces and oils used; packaging
in cans; and seaming, sterilization, cleaning, drying
and labelling of the cans. High fat (14-23%) offshore
capelin were difficult to handle. Capelin containing
14-16% fat could be processed into acceptable
products; capelin containing $\geq 20\%$ fat gave products
of unacceptable appearance. GL

272

The salmon. Their fight for survival. [Book]
Netboy, A.

xxii + 613pp. ISBN 0-395-14013-7 (1974) [many
ref. En] Boston, Massachusetts, USA; Houghton
Mifflin Co. Price \$15

This book on the Atlantic and Pacific salmon
fisheries includes numerous tables of data for
production and canning of salmon in various
countries, together with details of the salmon
industry in Japan, Canada and the USA. Methods
for cooking of salmon are also briefly discussed.
AJDW

273

[Commercial ichthyology and fish processing.]
Promyslovaya ikhtiologiya i obrabotka ryby. [Book]
Vansovich, M. L.; Mikhailova, N. F.; Rodin, E. M.
310pp. (1974) [21 ref. Ru] Moscow, USSR;
Pishchevaya Promyshlennost'. Price 0.50r

The book includes the following chapters: fish
morphology (pp. 5-26); conditions for fish survival
(pp. 26-40); classification of commercial fish (pp.
40-80); fish as commercial raw material (pp. 84-
108); reception, storage and transportation of fish
(pp. 108-114); fish cutting (pp. 114-143);
production of chilled and frozen fish (pp. 144-189);
fish brining and curing (pp. 190-222); caviare
preservation (pp. 223-233); fish canning (pp. 234-
256); fish oil production and feedstuff manufacture
(pp. 256-271); technology of mollusc processing
(pp. 272-284); packaging and packaging materials
(pp. 285-298); and labour safety sanitation and
hygiene during fish processing aboard boats (pp.
299-307). STI

274

Freshwater fishes of Canada. [Book]
Scott, W. B.; Crossman, E. J.

xi + 966pp. (1973) [many ref. En] Ottawa,
Canada; Fisheries Research Board of Canada Price
\$9.75

This book (Bulletin 184 of the Fisheries
Research Board of Canada) includes a detailed
account (covering distribution, biology and use as
food) of the freshwater fish spp. occurring in
Canada. A 55-page bibliography and a 44-page
subject index are given. AJDW

275

[Cooling chain in the fish industry.] Lancuch chłodniczy w gospodarce rybnej. [Book] Zukowski, K.

194pp. (1974) [124 ref. Pl] Gdansk, Poland; Wydawnictwo Morskie. Price 42zl

This book includes the following chapters: The importance of cooling of fish (pp. 15-25); Cooling of fish (pp. 25-52); Ice and its manufacture (pp. 52-61); Quality problems with frozen fish (pp. 61-77); Freezing of fish (pp. 77-118); Thawing of fish (pp. 118-125); Storage of frozen fish (pp. 125-144); Refrigerated transport (pp. 144-163); Cooling of fish during retail distribution (pp. 163-173); Domestic handling of frozen fish (pp. 173-176); and Problems of organization of the cold chain for frozen fish (pp. 176-180). STI

MEAT & POULTRY

276

[Manufacture of sausage casings.] Tekhnologiya proizvodstva kolbasnykh obolochek. [Book] Dergunova, A. A.; Shishkina, N. N. 246pp. (1973) [Ru] Moscow, USSR; Pishchevaya promyshlennost'. Price 0.88r

Aspects covered in this book include: manufacture and use of natural and synthetic sausage casings; effects of raw material quality on the final products; manufacture of sausage casings from bovine skin emulsions; manufacture of smoked products in synthetic casings; testing and analysis of synthetic casings; automation and mechanization; and improved productivity as a result of the use of synthetic casings. STI

277

[Nomenclature of meat cuts and their utilization.] Die Benennung der Fleischstücke und ihre Verwendung. [Book]

Switzerland, Verband Schweizer Metzgermeister 36pp. (1970) [De, Fr, It] Zurich, Switzerland; Verband Schweizer Metzgermeister Price FS1.80

This useful 3-language glossary contains both the normal schematicized drawings of meat cuts in relation to the living animal, and coloured photographs of the meat cuts themselves. Meats covered are beef, veal, pork, and mutton together with offal (tongue, heart, liver, kidneys, brain, tripe). Recommended methods for cooking the cuts are also listed. HBr

278

[The veterinary control service of the meat industry is 20 years old.] 20 Eves a husipari allatorvosi ellenőrző szolgálat. [Book] Prokopp, L.

207pp. (1973) [many ref. Hu, de, en, ru] Budapest, Hungary; Husipari Allatorvosi Ellenőrző Szolgálat

The full text is given of the following papers presented at this conference, held in Budapest, Hungary, 28-29 May 1973: Twenty years of the Meat Industry Veterinary Control Service, by G. Mehes (pp. 5-11); Operation of the Meat Industry Veterinary Control Service, with reference to diseases observed during the period 1956-1971, by G. Kazar and V. Gyimesi (pp. 12-27); The significance of the activities of the Meat Industry Veterinary Control Service, with reference to production and storage of refrigerated foods of animal origin, by J. Fazekas (pp. 28-36, 1 ref.); The development and operation of the laboratory network of the Meat Industry Veterinary Control Service, by J. Takacs and Z. Simonffy (pp. 37-52); The past, present and future of the Meat Industry Veterinary Control Service from the point of view of economic management, by L. Tecszy (pp. 53-63); Long-term tasks of meat inspection and food hygiene, by E. Nagy (pp. 64-70, 6 ref.); Planning and construction of small-scale cooperative slaughterhouses and meat processing plants, by L. Bodrossy (pp. 71-78); Experiences with eradication of tuberculosis at the Budapest cattle slaughterhouse, by L. Molnar (pp. 79-94, 10 ref.); Reduction of the microbial count of canned meat by treatment with ionizing radiation, by J. Farkas, I. Kiss, L. Beczner and K. Incze (pp. 95-100, 15 ref.); [continued in following abstr.] AJDW

279

[The veterinary control service of the meat industry is 20 years old.] 20 Eves a husipari allatorvosi ellenőrző szolgálat. [Book]

Prokopp, L.

207pp. (1973) [many ref. Hu, de, en, ru] Budapest, Hungary; Husipari Allatorvosi Ellenőrző Szolgálat

[Continued from preceding abstr.] Pesticide analyses and their public health significance, by Z. Simonffy, F. Horvath and J. Takacs (pp. 101-109, 10 ref.); Staphylococcal food poisoning of meat origin, by L. Ormay, T. Novotny, A. Marton and J. Domjan (pp. 110-117, 10 ref.); Pathological lesions indicative of generalized bacterial infection in cows suffering from infectious mastitis, and their meat-hygiene significance in cattle, by I. Szazados (pp. 118-126, 20 ref.); The incidence of salmonellae in meat and meat products during the period 1947-1971, by G. Nagy and J. Takacs (pp. 127-143); Observations during the bacteriological meat inspection of swine infected with salmonella cholerae suis, by A. Forray (pp. 144-149, 21 ref.); The role of the gall bladder and the intestinal trace in smear-infection with Salmonella, by L. Prokopp and E. Nagy (pp. 150-154, 21 ref.); Determination of the thermotolerant coliform count of meat samples for the detection of faecal contamination or processing errors, by S. Kovacs, J. Takacs and H. Domjan (pp. 155-164, 9 ref.); Examination of fish and fish products, with special reference to imported samples, by J. Takacs and E. Imreh (pp.

165-173, 16 ref.); Experience with hygienic production of meat-based canned foods, with special reference to export requirements, by T. Or (pp. 174-178); and The incidence of anthrax in material examined by the Pecs Laboratory of the Meat Industry Veterinary Control Service, by A. Forray (pp. 179-183, 11 ref.). AJDW

280

Proceedings of the International Symposium on Nitrite in Meat Products. [Conference proceedings] Krol, B.; Tinbergen, B. J. (Netherlands, Central Institute for Nutrition & Food Research TNO) (Editors)

268pp. ISBN 90-220-0463-5 (1974) [many ref. En] Wageningen, Netherlands Price Dfl 45.00

The full text is given of the following papers, presented at the International Symposium on Nitrite in Meat Products (held at the Central Institute for Nutrition and Food Research TNO, Zeist, The Netherlands, Sept. 10-14 1973): Formation of curing pigments by chemical, biochemical or enzymic reactions, by K. Möhler (pp. 13-18); Detn. of free and bound nitrite, by A. Mirna (pp. 21-27); Low-molecular meat fractions active in nitrite reduction, by B. J. Tinbergen, (pp. 29-36); Detn. of volatile amines and amine oxides in food products, by A. Ruiter (pp. 37-42); Detn. of volatile amines: a review, by G. Eisenbrand (pp. 45-51); Detn. of total non-volatile nitrosamines in microgram amounts, by C. L. Walters, D. G. Fueggle & T. G. Lunt (pp. 53-57); Microbiological effects of nitrite, by M. Ingram (pp. 63-74); Inhibition of *Clostridium botulinum* by nitrite and sodium chloride, by A. C. Baird-Parker & M. A. H. Baillie (pp. 77-89); Inhibition of bacterial growth in model systems in relation to the stability and safety of cured meats, by T. A. Roberts (pp. 91-101); Minimum nitrite concn. for inhibition of clostridia in cooked meat products, by A. B. G. Grever (pp. 103-109); Perigo effect in pork, by H. Pivnick & P.-C. Chang (pp. 111-116); Inhibitors in cooked meat products, by P. S. van Roon (pp. 117-122); About the mechanism of nitrite loss during storage of cooked meat products, by W. J. Olsman (pp. 129-137); [Continued in following abstr.] AJDW

281

Meat science. [Book]

Lawrie, R. A.

Ed. 2 xviii + 419pp. ISBN 0-08-017133-8 (1974) [many ref. En] Oxford, UK; Pergamon Press Ltd. Price \$12.50 [Univ., Nottingham, UK]

This revised and expanded second edition of this text book includes the following chapters: Introduction (pp. 1-15); Factors influencing the growth and development of meat animals (pp. 16-37); The structure and growth of muscle (pp. 38-69); Chemical and biochemical constitution of muscle (pp. 70-124); The conversion of muscle to meat (pp. 125-152); The spoilage of meat by infecting organisms (pp. 153-189); The storage and

preservation of meat. I. Temp. control (pp. 190-227); The storage and preservation of meat. II. Moisture control (pp. 228-267); The storage and preservation of meat. III. Direct microbial inhibition (pp. 268-285); The eating quality of meat (pp. 286-345); and Meat and human nutrition (pp. 346-356). A 36-page bibliography is included. AJDW

282

[Physicochemical and biochemical principles of the technology of meat and meat products.] Fiziko-khimicheskie i biokhimicheskie osnovy tekhnologii myasa i myasoproduktov. [Book]

Korbut, L. V. (Editor)

496pp. (1973) [many ref. Ru] Moscow, USSR; Izdatel'stvo Pishchevaya Promyshlennost'. Price 2.1r

This highly detailed reference book is 1 of the series "Techniques and technology in the meat industry", for which 10 titles are planned. The book contains the following chapters: Morphology of meat and animal and poultry slaughter products (pp. 5-59, 5 ref.); Chemistry of meat, by-products and eggs (pp. 60-115, 34 ref.); Structural and mechanical properties of meat and by-products (pp. 115-167, 23 ref.); Thermal, electrical and optical properties of meat and by-products, (pp. 167-215, 60 ref.); Chemical basis of the fundamental process occurring during the processing of meat (pp. 215-273, 35 ref.); Autolytic changes in animal tissue (pp. 273-299, 27 ref.); Microflora of meat and meat products (pp. 299-326, 34 ref.); Use of cold during the processing of meat and meat products (pp. 326-356, 13 ref.); Salting and smoking of meat products (pp. 356-388, 23 ref.); Changes in meat products under the influence of heating (pp. 388-437, 11 ref.); Drying of meat products (pp. 437-468, 11 ref.); and Use of ionizing irradiation, sorbic acid and antibiotics to increase the shelf life of meat and meat products (pp. 468-484, 24 ref.). A 6-pp. index is included. HBr

283

[Technology of meat and industrial products.]

Tekhnologiya myasa i tekhnicheskikh produktov. [Book]

Nikitina, I. A. (Editor)

538pp. (1973) [many ref. Ru] Moscow, USSR; Izdatel'stvo Pishchevaya Promyshlennost'. Price 2.4r

This comprehensive reference book, 1 of the series mentioned in the preceding abstr., contains the following chapters: Production of sausage and smoked products (pp. 6-140, 42 ref.); Production of semi-manufactured meat products and prepared meat dishes (pp. 140-162, 8 ref.); Production of meat preserves (pp. 162-256, 5 ref.; includes many relevant standards); Production of edible fats (pp. 257-344, 9 ref.); Processing the non-food wastes from meat production (pp. 344-402, 5 ref.); Processing of eggs and production of egg products (pp. 403-419, 6 ref.); Production of glue and gelatin (pp. 420-468, 5 ref.); and Production of preservations from various organs (pp. 468-528, 9 ref.). A 4-pp. index is included. HBr

284

[Handbook of meat product manufacture.]
Handbuch der Fleischwarenherstellung. [Book]
Lienhop, E.

Ed. 8, 852pp. (1974) [De] Braunschweig, Federal Republic of Germany; Verlag Gunter Hempel

This comprehensive manual on meat is divided into 2 basic sections: production and processing. Chapters are included on slaughter animals; statistics; rail and road shipment of cattle and meat; slaughterhouses; slaughtering and dressing; processing of blood, bones, skin, hair and glands; animal fats; intestines; animal diseases; inspection; role of meat in human nutrition; cooling of meat; salting, brining, smoking and cooking; methods of producing individual meat products; preservation and meat preserves; packaging; storage; decomposition; meat poisoning; condiments and the like; water used for processing; exports; meat inspection; price aspects; special butchery machines and equipment; containers; disinfection in the meat industry; pest control; and organizations connected with the meat industry. A 10-pp. subject index is included. HBr

285

Practical meat cutting and merchandising. Vol. 1. Beef. [Book]

Fabbicante, T.; Sultan, W. J.

vii + 208pp. ISBN 0-87055-172-8 (1974) [many ref. En] Westport, Connecticut, USA; AVI Publishing Co., Inc. Price \$12 (US) \$13 (Foreign) [Food & Maritime High School, New York, USA]

This manual of beef cutting and marketing includes the following sections: Introduction to nomenclature and trade terms (pp. 1-6); Trends in meat processing and merchandizing (pp. 7-9); Primal and subprimal beef cuts (pp. 10-14); The beef flank (pp. 15-24); Beef hindshank and foreshank (pp. 25-35); Beef rounds (pp. 36-55); Inside rounds, outside rounds and knuckle faces (pp. 56-79); Beef loins (pp. 80-105); The beef forequarter (pp. 106-113); The brisket, strip and plate of beef (pp. 114-120); The beef rib (pp. 121-140); Beef arm chucks (pp. 141-157); Processing beef shoulders (pp. 158-184); and Processing a beef neck (pp. 185-200). AJDW

286

Practical meat cutting and merchandising. Vol. 1. Beef. [Book]

Fabbicante, T.; Sultan, W. J.

vii + 208pp. ISBN 0-87055-172-8 (1974) [many ref. En] Westport, Connecticut, USA; AVI Publishing Co., Inc. Price \$12 (US), \$13 (Foreign) [Food & Maritime High School, New York, USA]

This practically oriented book, intended specifically for the American reader, is designed to meet the needs of all persons engaged in the production of beef cuts, e.g. teachers, wholesale

and retail meat cutters, apprentices, cooks, and institutional managers and purchasers. A large number of simple but effective drawings supplement the textural description of cut nomenclature and cutting procedures, and a series of multi-choice questions are included as an aid to self-teaching. The thorny problem of the nomenclature of the cuts has been tackled realistically, and identification of beef cuts has been made on a geographical (New York and New England areas) and trade (restaurant and institution) basis. A 4-pp. subject index is included. HBr

287

[Trace elements in wine and other beverages.]
Spurenelemente in Wein und anderen Getränken. [Book]

Eschnauer, H.

220pp. ISBN 3-527-25452-8 (1974) [many ref. De] Weinheim/Bergstr., Federal Republic of Germany; Verlag Chemie GmbH Price DM78

This well-produced monograph lists modern methods for the detn. of trace elements, with full bibliographic support for the period up to 1971. The body of the work deals with the properties and incidence in wine and other beverages of Al, Sb, As, Pb, B, Br, Cd, Cr, Fe, F, I, Co, Cu, Li, Mn, Mo, Ni, Rb, Cs, Se, Ag, Hg, Si, Sr, Ba, Tl, Ti, U (and radioactivity), V, Bi, Zn and Sn. Some 130 tables, including summary tables of trace element contents in wines etc., and a useful 6pp. index are also included. SKK

288

Handbook on meat inspection. [Book]

United Kingdom, British Veterinary Association

Ed. 4, 98pp. (1973) [En] London, UK Price £2.50

This practical handbook on veterinary inspection of meat includes the following chapters: Ante-mortem inspection (pp. 7-16); Post-mortem inspection of meat (pp. 16-27); The carcass (pp. 27-44); Model certificates (pp. 45-47); Laboratory aids to meat inspection (pp. 48-58); and Meat inspection legislation (pp. 58-98). AJDW

289

Intensive beef production. [Book]

Preston, T. R.; Willis, M. B.

Ed. 2, xxiii + 567pp. ISBN 0-08-017788-3 (1974) [many ref. En] Oxford, UK; Pergamon Press Ltd. Price £8.00 [Comision Nacional de la Industria Azucarera, Humboldt No. 56-ler. piso, Mexico 1, DF]

This detailed textbook on the production and quality of beef includes the following chapters: The market (pp. 5-29 by G.B. Hagelberg); Carcass composition and quality (pp. 30-102); Genetic improvement (pp. 105-165); Genotype-environment interactions (pp. 166-180); Physiology of digestion and feed utilization (pp. 181-209); Beef calf production (pp. 210-256); Dairy calf

production (pp. 257-278); Breed, sex and hormones (pp. 281-304); Growth and efficiency-nutrition (pp. 305-385); Growth and efficiency-climate, housing and management (pp. 386-395); Disease (pp. 396-413); and Perspectives (pp. 417-446). A 90 page bibliography is given, and an 18 page subject index is provided. AJDW

290

[The nutritive value of meat.] Der Nährwert des Fleisches. [Book]

Niinivaara, F. P.; Antila, P.

181pp. ISBN 3-87854-007-8 (1972) [many ref. De] Alzey, Federal Republic of Germany; Verlag der Rhein Hessischen Druckwerkstätte E. Dietl & Co.

This well-produced, soft cover publication, No. 8 in the series *Fleischforschung und Praxis*, is divided into 2 sections, General food science (pp. 9-37) and Nutrient contents of meat and meat products (pp. 39-118). The 2nd section contains the following chapters: Composition and energy content of meat (pp. 39-54, 18 ref.); Meat carbohydrates (pp. 55-57, 7 ref.); Animal fats (pp. 58-86, 33 ref.); Meat proteins (pp. 87-113, 35 ref.); Vitamins in meat (pp. 114-153, 87 ref.); and Minerals in meat (pp. 154-178, 34 ref.). A 3-pp. subject index is included. HBr

291

[Beef production in British and German concerns.] Rindfleischproduktion in englischen und deutschen Betrieben. [Book]

Weiers, C.-J.

226pp. ISBN 3-8001-8817-1 (1974) [121 ref. De] Stuttgart, Federal Republic of Germany; Eugen Ulmer Verlag

This book (No. 3 in the series 'Bonner Hefte für Landwirtschaftliche Betriebslehre') includes the following chapters: General survey of agriculture in Great Britain (pp. 4-26); Detailed description of the most important beef production systems in Great Britain (pp. 27-90); Basic principles of economic evaluation of beef production in Great Britain and the Federal Republic of Germany, (pp. 90-134); Development of the production structure of British beef production units (pp. 134-162); Development of the production structure of German beef production units (pp. 162-200); Comparison of the competitiveness of German and British beef production systems under German conditions in 1975 (pp. 200-207); and Summary (pp. 207-212). AJDW

292

Proceedings of the III World Conference on Animal Production. [Conference proceedings]

Reid, R. L. (Australia, Australian Society of Animal Production World Association of Animal Production) (Editor)

ix+694pp. ISBN 0-424-00007-5 (1975) [many

ref. En] Sydney, Australia, Sydney University Press Price £23.20

This book gives the full text of every paper presented at this symposium (held in Melbourne, Australia, 22-30 May 1973, sponsored by the World Association of Animal Production, the Australian Society of Animal Production and the Commonwealth and State Governments of Australia), including the following: Technological problems associated with the utilization of terrestrial wild animals, by R. C. Bigalke (pp. 36-46, 86 ref.); Technological aspects of domestication and harvesting of certain species of game in South Africa, by J. D. Skinner (pp. 119-125, 17 ref.); Technological and economic aspects of game management and utilization in Africa, by E. Young (pp. 132-141, 64 ref.); Techniques for livestock development in relation to Nigeria, by A. A. Adegbola (pp. 345-350, 11 ref.); The future of animal production: economic aspects, by G. Oscarsson (pp. 447-457, 22 ref.); The future of animal production from the point of view of food technology, by M. V. Tracey (pp. 458-463, 8 ref.); Animal production in world food supplies, by R. E. McDowell (pp. 464-472, 8 ref.); and Dairy herds as a resource for beef production, by G. C. Everitt (pp. 505-510, 15 ref.). Another 8 papers are abstracted separately, and are in the author index under World Association for Animal Production [Symposium]. AJDW

293

[Minimum temperature and pH requirements for pork and beef according to the EEC Fresh Meat Regulation of 14 December 1970, and their implementation in practice. Investigations at the Münster (Westphalia) municipal slaughterhouse.]

Mindestanforderungen an Temperatur und pH-Werte für Schweine- und Rindfleisch nach der EWG-Richtlinie Frisches Fleisch vom 14.12.1970 und ihre Durchführung in der Praxis.

Untersuchungen am Schlachthof Münster (Westf.). [Thesis]

Pawlik, S.

44pp. (1974) [45 ref. De, en] [Hanover, Federal Republic of Germany; Tierärztliche Hochschule]

According to EEC regulations, the internal temp. of carcasses and fresh cuts should be $\leq 7^{\circ}\text{C}$ and the pH should be within the 5.6-6.1 range. Temp. and pH measurements were taken in the Münster slaughterhouse at 4 sites on (i) 3000 pig carcasses (slaughter wt. 75-80 kg) and (ii) 600 beef half-carcasses, between Nov. 1972 and end of Feb. 1973 and between middle of May 1973 and end of July 1973. The temp. of (i) exceeded the prescribed value in 60% of cases in summer and 31% in winter for (ii), the corresponding values were 73 and 56%. In summer, 1.85% of 1500 pig carcasses showed pH values below the prescribed range and 8.47% showed values above the range. In winter, the corresponding values were 27.7 and 3.2% respectively. No obvious departures from the prescribed range were found in (ii). For (i) and (ii), correlation coeff. between pH values at different sites were 0.37-0.72. SKK

294

[Diethylstilboestrol determination in injectable preparations and in calf carcasses.] Le diethylstilboestrol recherche dans les preparations injectables et dans les carcasses de veau. [Thesis] Baronne, J. M.

57pp. (1973) [52 ref. Fr] Alfort, France; Ecole Nationale Veterinaire

5-g samples of calf fat of unknown diethylstilboestrol (DS) content were saponified with alcoholic KOH, and extracted with CHCl_3 at 4. Silica gel TLC was not sufficiently sensitive to detect the presence of DS; GLC was not tested. Known quantities of DS or of DS dipropionate were added to freeze-dried veal; the samples were treated essentially as for fat. Recovery was 60-70%. It is concluded that no satisfactory method can be recommended for on-the-spot detection in slaughterhouses of animals treated with synthetic oestrogens. SKK

295

[New trends in animal nutrition.] Hayvan besleme alaninda yeni görüsler. [Book]

Dilmen, S. (Editor)

vii + 222p. (1974) [Tr, De, En] Ankara, Turkey; Ankara University

This book, published to mark the 50th anniversary of the Turkish Republic and the 20th anniversary of the Department of Animal Nutrition in the Veterinary Faculty of Ankara University, contains 20 papers (in German, English or Turkish) dealing with recent developments in animal nutrition and progress made in this field in the last half century in Turkey. They include the following: Twenty years as Professor of Feedstuffs and Animal Nutrition in the Veterinary Faculty of Ankara University, by S. Dilmen (pp. 1-6, De); Wilhelm Henneberg and the foundations of rational feeding, by W. Lenkeit (pp. 7-11, De); The importance of the arid zone for Turkish feedstuffs and animal production, by V. Horn (pp. 51-62, De, 16 ref.); Utilization of NPN compounds in ruminants, by W. Kaufmann (pp. 63-70, De, 5 ref.); Increasing milk and meat production to meet demand for high-quality protein - a world problem, by M. Witt (pp. 81-94, De, 2 ref.); Meat production by ruminants - a world problem, by I. G. Galdeano & H. Zucker (pp. 95-99, De, en, 11 ref.); Future trends and limits of performance in animal production from the standpoint of animal nutrition, by H. J. Oslage (pp. 113-123, De); Developments in cattle breeding and production in Turkey, by O. Alpan (pp. 159-173, Tr, en, 18 ref.); and Major problems of cattle farming in Turkey - feeding and management, by Z. Magdenli (pp. 189-222, Tr). ADL

ADDITIVES

296

Cellulose gum. Chemical and physical properties. [Booklet]

Hercules Inc.

47pp. (1971) [56 ref. En] [Wilmington, Delaware, USA]

This booklet describes the basic chemical and physical properties of cellulose gum in all its forms. The information is arranged under the following headings: Chemistry (pp. 2-3); Types and grades (viscosity types, different particle sizes) (pp. 3-5); Properties (moisture absorption, physiological properties) (pp. 6-7); Regulations for use in food (US) (pp. 8-9); Dissolving cellulose gum (pp. 10-14); Properties of cellulose gum solutions (viscosity and stability) (pp. 15-28); Compatability (pp. 28-36); Properties of cellulose gum films (pp. 36-38); Applications (pp. 39-40) Packaging and shipping (pp. 40-41). An appendix is included: 'Methods of analysis'. VJG

297

[Spices. Botanical and chemical study.] Gewürze. Botanische und chemische Untersuchung. [Book]

Melchior, H.; Kastner, H.

290pp. ISBN 3-489-68914-3 (1974) [many ref.

De] Hamburg, Federal Republic of Germany;

Verlag Paul Parey Price DM68 [Botanischer Garten und Museum, Berlin(West)-Dahlem]

This well-produced text-book, intended for food chemists and for teaching purposes, is dedicated to the late Professor Constant Griebel, whose manual "Gewürze und gewürzhaltige Gemenge", published in 1954, it is designed to replace. The work, the 2nd in the comprehensive series "Grundlagen und Fortschritte der Lebensmitteluntersuchung", edited by Schormüller, Melchior & Kiermeier, consists of the following main chapters: General aspects (pp. 11-39); Individual spices and their analysis (pp. 39-106); Spice seeds (pp. 106-138); Spice flowers (pp. 138-150); Spice rhizomes (pp. 150-174); Spice barks (pp. 175-191); Spice leaves and herbs (pp. 191-248); and Spice fungi (pp. 248-252). Spice mixtures and preparations and legislative aspects are also briefly considered (pp. 252-263). Numerous clear illustrations add value to the book, and there is a good, 10pp. index. SKK

298

[Natural and synthetic additives in human nutrition, 14th International Symposium 1972 in Saarbrücken.] Natürliche und synthetische

Zusatzstoffe in der Nahrung des Menschen. 14.

Internationales Symposium 1972 in Saarbrücken. [Conference proceedings]

Ammon, R.; Hollo, J. (Commission Internationale des Industries Agricoles & Alimentaires [CIIA]) (Editors)

vii + 293pp. ISBN 3-7985-0381-8 (1974) [many ref. De] Darmstadt, Federal Republic of Germany; Dr. Dietrich Steinkopff Verlag Price DM128

Papers presented at the Symposium include: The effect of miraculin on the taste buds, by Y. Zotterman (pp. 161-167, 4 ref., En); Flavonglycosides in citrus fruits, by H. J. Bielig (pp. 167-173, 8 ref., De); and The use of enzymic hydrolysis of proteins for quantitative determination of methionine in processed food, by D. Pieniazek & M. Rakowska-Warschau (pp. 233-234, De). Another 18 papers are abstracted separately and are in the author index under CIIA [Symposium]. GL

299

Evaluation of certain food additives. [Book] World Health Organization *World Health Organization Technical Report Series* No. 557, 37pp. ISBN 92-4-120557-1 (1974) [33 ref. En] Geneva, Switzerland Price: FS5

This report by the joint FAO/WHO Expert Committee on Food Additives, which met in Rome on 4-13 June 1974, covers some flavouring substances and flavour enhancers, food colours, food enzymes, thickening agents, and a variety of substances including asbestos (which sometimes contaminates food, possibly from filter pads used in the food industry), saccharin, cyclamates, etc. Acceptable daily intakes (ADI) and the status of specifications for these substances are summarized in an annex. The report also discusses the need for adequate information on which to base evaluations and the general principles for establishing ADIs. The committee decided that, as a general rule, the ADI should include that total amount of a compound in food; toxicity of the substance is the same whether it is naturally present or added subsequently, and it is normally not possible to differentiate by chemical analysis between them. However, there are exceptions and each case should be examined individually. Principles governing the establishment of specifications and revision of certain specifications are also described in the report. Further toxicological studies and information required by the Committee for future evaluations are summarized in an annex. [This report will also be published in Fr, Ru and Es.] AL

LEGISLATION

300

[Food legislation for the retail trade. A cross-section of the major regulations.] Lebensmittelrecht für den Einzelhandel. Ein Querschnitt der wichtigsten Bestimmungen. [Book] Weiss, H.; Kiesgen, K. H. 214pp. (1973) [11pp. of ref. De] Frankfurt am

Main, Federal Republic of Germany; Deutscher Fachverlag GmbH Price DM16.80

This book, which summarizes Federal Republic of Germany food regulations, is divided into the following chapters: Cereals, cereal products and dried legumes (pp. 15-17); Bread and bakery products (pp. 17-23); Pasta products and breakfast foods (pp. 23-25); Starch, starch-rich foods and gelling agents (pp. 25-28); Eggs and egg products (pp. 28-31); Potatoes and potato products (pp. 31-35); Fruit, vegetables and mushrooms (pp. 36-58); Exotic plant products (pp. 58-59); Honey and synthetic honey (pp. 59-61); Sugar and sweeteners (pp. 61-66); Sugar confectionery, marzipan and sherbet powder (pp. 66-74); Chocolate and chocolate products (pp. 74-82); Meat and meat products (pp. 82-103); Fish and fish products (pp. 103-121); Milk and milk products (excluding butter) and ice cream (pp. 121-139); Butter, margarine, edible fats, vegetable oils (pp. 139-145); non-alcoholic beverages (pp. 145-152); Alcoholic beverages (pp. 152-168); Coffee, tea and similar products (pp. 168-171); Spices, spice extracts, essences, salt, vinegar and mustard (pp. 171-174); soups, broths and sauces (pp. 174-176); Dietetic foods (pp. 176-180); and Frozen foods (pp. 181-182). AJDW

301

Packaging and the law. [Book] Paine, F. A. (United Kingdom, Institute of Packaging) (Editor) 104pp. ISBN 0-408-00107-0 (1973) [En] London, UK; Butterworth & Co. (Publishers) Ltd. Price £2.20

This book is in the series Fundamentals of Packaging, and is a co-operative venture between the publishers and the Institute of Packaging. Chapters included are: Introduction, by D. J. Suckling (pp. 1-14); Food labelling, by G. E. Cottee (pp. 15-28); Weights and measures, by E. A. Nisbet (pp. 29-37); The Trades Descriptions Act, 1968, by B. Egan (pp. 38-52); The law of copyright as it affects packaging, by D. J. Suckling (pp. 53-58); Design, trade mark and patent aspects of packaging, by W. C. Howarth (pp. 59-77); Transport regulations, by R. M. Bland (pp. 78-87); and Cargo insurance, by V. E. Robertson (pp. 88-102). VJG

302

[Handbook of meat product manufacture. Legal stipulations.] Handbuch der Fleischwarenherstellung. Rechtsbestimmungen. [Book]

Lienhop, E. 788pp. (1974) [De] Braunschweig, Federal Republic of Germany; Verlag Gunter Hempel

This handbook, issued in a sturdy plastics ring-type holder to facilitate incorporation of amendments etc., covers German Federal legislation as of April 1, 1974. The Law on Trade in Foods and Items of Utility (Food Law) is quoted

in full, and the following additional sections are incorporated; General legal regulations for foods; Related legal regulations; Legal regulations for special foods; Guidelines, and basis of legal decisions; Hygiene regulations and laws; Hygienic regulations of the individual counties (Länder); Trade in cattle and the slaughter animal market; Regulations on the inspection of slaughter animals and meat; and Slaughtering and processing. A small (3-pp.) but useful subject index is included. HBr

303

[Technical regulations on the sale of food products.] Regles techniques de la commercialisation des produits alimentaires. [Book]

Rochefrette, M.

168pp. (1974) [Fr] Paris, France; Editions Eyrolles Price 79F

This manual discusses and documents French regulations in force with regard to technological aspects of equipment used in shops, workshops, and transport vehicles (general principles, refrigerated stores, refrigerated display cabinets, workshops for preparation and conditioning of food products, and transport of fresh and frozen products); rotation of food products; general hygiene in shops and stores; official control (fraud prevention, veterinary inspection, wt. and measures inspection, and other controls and control documents); and labelling regulations. Appendices in identification of production date of canned goods; declarations by establishments selling foods of animal origin; and diagrams (plans) of shops retailing unpackaged fish are included. Of particular interest are the tables giving for a wide variety of foods the storage temp., the period for which they can be offered for sale at these temp., and the recommended time within which they should be eaten after purchase. SKK

304

Plastics for food contact applications. A code of practice for safety in use. [Book]

United Kingdom, British Plastics Federation

Ed. 2, 63pp. (1973) [En] London, UK Price £30

This edition, revised after a thorough review of existing recommendations and a critical assessment of the latest information and developments, goes a long way to ensuring public safety with regard to the use of plastics materials for food applications. The lay-out of the book, which is published in a sturdy loose-leaf binder, is based on that of the 1st edition [see FSTA (1970) 2 2D98]. The section 'Polymer specifications' covers vinyl chloride polymers and copolymers, styrene polymers, acrylonitrile butadiene styrene polymers, polyethylene, polypropylene, melamine formaldehyde mouldings, unsaturated polyester resins and expanded styrene polymers. A list of 322 trade or brand names of additives is included, and covers UK suppliers, principal constituent or chemical type, polymer class, types of product and food concerned, max. level of use, limitations

(where applicable) and authority providing basis for recommendation. A cross-reference system in alphabetical order of chemical name or type is also included. HBr

305

Federal agricultural legislation up to 1975. [Book] Canada, Department of Agriculture, Economics Branch

63pp. (1975) [En] Ottawa, Canada

This Economics Branch Publication No. 75/1 includes a section on marketing legislation dealing with foods. AL

306

[Food legislation. Collected texts. Supplement, August, 1974.] Lebensmittelrecht. Textsammlung. Ergänzungslieferung Stand August 1974. [Book] Zipfel, W. (Editor)

320pp. ISBN 3-406-04768-8 (1974) [De] Munich, Federal Republic of Germany; Verlag C. H. Beck Price DM17.80

This booklet, the 8th supplement to the 6th edition (or the first supplement to the 8th edition) contains supplements and amendments to food laws (including the law for total reform of food legislation) in the Federal Republic of Germany, which are hereby updated to Aug. 1974.

AJDW

307

[Food legislation. Commentary.] Lebensmittelrecht-Kommentar. [Book]

Zipfel, W. (Editor)

420pp. ISBN 3-406-03804-2 (1974) [De] Munich, Federal Republic of Germany; Verlag C. H. Beck Price DM75

This book is the 24th supplement to the 1st edition (or 9th supplement to the 2nd edition) of this loose-leaf collection of and commentary on food laws in the Federal Republic of Germany. It brings the series up to date as of Oct. 1974. [See also preceding abstr.] AJDW

308

[Food legislation. Commentary.] Lebensmittelrecht-Kommentar. [Book]

Zipfel, W. (Editor)

430pp. ISBN 3-406-03803-4 (1974) [De] Munich, Federal Republic of Germany; Verlag C. H. Beck Price DM78

This book is the 23rd supplement to the 1st edition (or 8th supplement to the 2nd edition) of this loose-leaf collection of and commentary on food laws in the Federal Republic of Germany. This supplement (which includes the law for total reform of food legislation) brings the series up to date as of Aug. 1974.

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